National Railways

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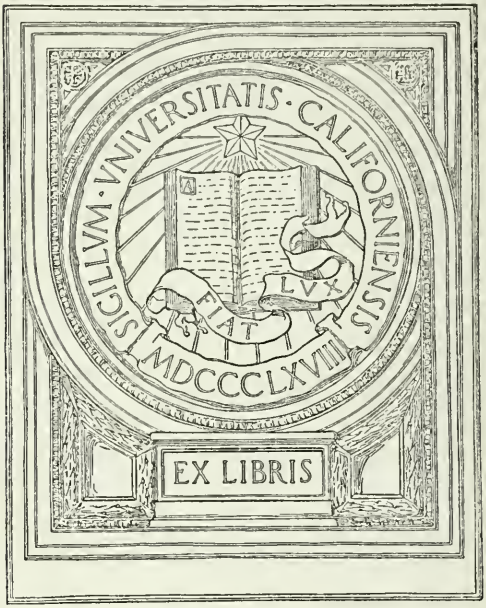

THE GIFT OF
MAY TREAT MORRISON
IN MEMORY OF
ALEXANDER F MORRISON

NATIONAL RAILWAYS:

An Argument for State Purchase.

BY

JAMES HOLE,

AUTHOR OF "HOMES OF THE WORKING CLASSES," SOCIETY OF ARTS PRIZE ESSAY ON MECHANICS' INSTITUTIONS, ETC.

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To

SIR ALBERT KAYE ROLLIT,

M.P., LL.D., D.C.L.,

PRESIDENT OF THE ASSOCIATION OF CHAMBERS OF COMMERCE OF THE UNITED KINGDOM,

CHAIRMAN OF THE ASSOCIATION OF MUNICIPAL CORPORATIONS, ETC.,

WHO RECOGNISES THE PRINCIPLE

OF OWNERSHIP OF THE RAILWAYS BY THE GOVERNMENT

AS TRUSTEE FOR THE NATION

IN THE INTEREST OF THE PUBLIC WELFARE,

THIS WORK IS, BY PERMISSION, RESPECTFULLY

Dedicated

BY THE AUTHOR.

GIFT OF MRS. A. F. MORRISON
MAR 27 '13

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PREFACE.

THE following work offers numerous examples of State action in relation to Railways. With few exceptions the evidence in favour of the general principle of State ownership seems conclusive. The force of the argument does not rest upon single instances, but on their cumulative effect. If that principle be sound, we may hope that public opinion will adopt it, and ultimately give it effect.

The writer is indebted to some high railway authorities for suggestions, which he gratefully acknowledges.

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RAILWAYS AND THE STATE.

CHAPTER I.

INTRODUCTION.

"Committees and Commissions carefully chosen have for the last thirty years clung to one form of competition or another; it has nevertheless become more and more evident that competition must fail to do for railways what it does for ordinary trades, and no means have been devised by which competition can be permanently maintained."[1]

FEW social questions have been more warmly contested than this:—whether the State should own the railways of a country, or if not own them, to what extent it should control them. To put the question on the reverse side, how far railways should be subject only to individual enterprise and competition. The importance of the question arises from the great interests concerned. In this country the profits of 400,000 shareholders of £919,425,121 of capital, and the welfare of an equal number of employés, are only one side of the account. The interest of every trader and passenger in Great Britain, a much larger consideration, is also involved. The railway, next to printing, has become the most important instrument of civilisation. The mechanical ingenuity that has devised and perfected this means of locomotion has not been well seconded by the wisdom which in the interests of the whole

[1] Report of the Joint Committee of Lords and Commons, 1872 (page xviii.).

community should administer it. One reason of this is that the railway has been a growth, in the earlier stages of which no one could conceive the enormous development to which it would attain, or the difficult problems to which it would give rise.

Thus, for example, the earlier railway promoters only contemplated carrying goods from station to station, the senders finding their own engines and trucks, and paying the companies toll for the use of the line. But it was found to be a greater convenience for the company to provide these facilities. Then the railway company did not undertake the collection and delivery of the goods, but left this to the senders and receivers, who might employ their own carts or those of ordinary carriers. And so the system grew stronger and stronger. It was based on two elements—private property and competition. Few people cared to ask whether this basis for the future highways of the nation was a sound one. The *laissez-faire* principle, under the then popular teaching of political economy, was supposed to be adequate to every condition of social action. Considering the prevalence of this opinion, and the novelty of the new power which was revolutionising the country, it is a matter of wonder that the Government was permitted to exercise any control whatever. Fortunately, the State was sane enough not to permit promoters and those who hoped to get something out of the new Eldorado to do quite as they liked. They were bound to show some tolerable proof of the utility of their proposals, and to submit them to the sifting process of a Parliamentary Committee. It was not much, but it saved this country from the evils and excesses of countries where charters are recklessly granted without reference to the national welfare. Meanwhile railways, though private property, became increasingly greater public necessities—in fact, superseding all other

modes of conveyance. Coaches and waggons for the most part disappeared, and busy highways became solitudes. The change was gradual, and few seemed to recognise that the most important means of public transit had fallen entirely into the hands of private owners. Yet, as Mr. Bonham justly remarks, "the shareholders of the railways are not and cannot be the owners of them in the strict sense of ownership. They cannot own a franchise empowering them to take private property, or to construct, maintain, and operate a public highway. They cannot exercise it as public agents, but its ownership remains with the State as an essential part of the power of the State; and it is this ownership that the State cannot part company with. The direct motive for the management of an industrial *quasi*-public franchise by those to whom such franchise is given, is essentially commercial and private. The corporation to which the franchise is committed has a motive for gain; and the motive for which the franchise was given—public equal convenience—does not of itself, and cannot, run current with the motive for gain. The two are not homogeneous."[1]

"What," asks Mr. Watherston, "would be said to the proposal of private companies offering to embank the rivers Thames, Mersey, and Humber, and to levy heavy tolls at their own discretion on all the shipping passing up and down these water-highways?"

In this country we do not care much for abstract principles, however sound. An abuse may outlast several generations, and have wonderful vitality, especially when it is more a *collective* than an *individual* evil. If a system works tolerably well, or even if it inflicts no serious evil, we listen

[1] "Industrial Liberty," page 180.

to proposals to change it for a better or more logical one with indifferent ears. So with our chance-medley railway system. It has grown with the wealth of the country, which it has helped greatly to promote, the construction has been good and substantial, the carriages have been improved, the speed quickened, rates and fares, if high, have not overpaid those who found the capital to construct them.[1] Notwithstanding these admissions, had anybody been asked to devise a scheme for the establishment and management of the principal part of the passenger and goods traffic of the nation, about the last plan that would have suggested itself would be the one in actual existence. Its result is that the principal highways of this great commercial country are under the control of about 250 boards of directors. Owing, however, to amalgamations and working agreements, the greater portion is in the hands of a dozen leading railway boards. About a dozen oligarchies control the traffic of the country, and though they profess to regard the interests of the community, naturally they regard first and foremost those of their own shareholders. The result is the creation of a number of modified despotisms, well organised and therefore stronger than the whole non-organised trading and commercial community. The country has been parcelled out in a rather chaotic way among a few great companies, who combined readily enough, and now two-thirds of the entire mileage of railways in England and Wales is in the hands of six companies.[2] Although amalgamation has

[1] The average rate of profit on the total in 1892 was only 4 per cent. No dividend was paid on £62,000,000, and on £14,000,000 the dividend was not over 1 per cent.

[2] "The Railway Problem," by Joseph Parsloe. (*Fortnightly Review*, 1886.)

Between 1846 and 1886 the London and North Western

benefited both the companies and the public, no one would have suggested that the best way of carrying on the principal national traffic of the country would be to hand it over to a few private companies.

Captain (now Sir) H. W. Tyler summed up the question of Company *v.* State management in a memorandum presented to the Committee of 1872. While admitting that the railway system would have progressed less rapidly than it has done under joint-stock enterprise, he thought that what was effected would have been done at much less cost, and without the sudden enrichment of some and the impoverishment of others. While the joint-stock management had been successful in many instances, it had also shown symptoms of grievous failure. "No one," he says, "who is not actually engaged in the working of railways, or in watching the details of their working, can have any idea of the unnecessary cost, labour, and obstruction to traffic which arise from the diversities of interests and of management of the various companies. . . . As they became larger, with larger mileage, greater business, and more considerable power and influences, so they became more unwieldy, more impervious to action from within or from without, and too often more difficult to move in the direction of improvement." They stand upon their legal powers, defy interference and control. While he admitted the marvellous engineering progress, and the improvements in communication, "neither the construction

increased from 379 to 1,811 miles; the Great Western from 118 to 2,301 miles; the North Eastern from 274 to 1,534 miles; and the Great Eastern from 139 to 1,038 miles.

"There are 6,000 stations in the United Kingdom, and only at one-fourth of them do competing lines meet. As to 4,500 stations, there is complete monopoly, and the Companies charge what they please within their powers." ("State Purchase of Railways," Charles Waring).—*Fortnightly Review*, June, 1886.

nor the management of railways under the joint-stock system has been carried on without very serious drawbacks, shortcomings, and disadvantages."[1]

These words were uttered by one who had then 19 years' experience as a railway inspector, and could speak with almost unequalled authority.

Yet in this very report, with Sir H. W. Tyler's evidence, and a valuable memorandum he presented on the subject in behalf of State purchase, all that the Joint Committee could devote to it was 13 *lines* of their lengthy report, and this after the remarkable admission that so far as the evidence offered to the Committee has touched on the subject, "the only remedy suggested for it" (*i.e.*, the political and commercial dangers from the growth of these large corporations) "is the acquisition of the railways by the Government:" yet it saw no present necessity for entering on this full and long inquiry of a great and difficult subject, etc., etc., and so the Committee proceeded to consider how they could best patch up the existing system.

In relation to the public interest the shareholders are a nullity. They are a constantly changing body, scattered over the empire. What local interest the first shareholders in a line may have had has been transferred over and over again. They of necessity leave the business to the Board, "theirs not to reason why," whether the matter of complaint be unfair charges on the trader, or under-wages or overwork imposed on the railway servant. If they entertained doubts, a fair dividend would set them at rest, in this respect faithfully following the example of most other joint-stock companies. There is the board, but what is the board? For the most part it consists of men who have had no training in the business, who have other businesses and affairs to look after, who

[1] Report, 1872, p. 831. Appendix 4.

often sit on several other boards, and who receive a fee not tempting enough to permit them to give more than a small fragment of their time. Hence the principal duties supposed to rest in the board often devolve on the chairman and managers, who mostly could manage better without the superfluous board. It may be safely averred that some score of persons control nearly one thousand millions of capital and 20,000 miles of the most important communication of the country.[1] That they manage it so well is a matter of congratulation. Often they manage not so well, but this presents no difficulty to a clever plausible chairman. It is none the less possible to conceive that the system is capable of improvement,

[1] "There is an able and powerful bureaucracy of directors, secretaries, and agents. The real managers are far removed from the influence of the shareholders, and the latter are to a great extent a fluctuating, ignorant, and helpless body."—Report, 1872, p. 81.

A recent letter in the *Times*, referring to one railway chairman, said: "With no general manager, non-existent heads of departments, and a dummy board of directors, the railway is practically Mr. ——, or, at least, that small portion of Mr. —— which he is able to spare from his multifarious duties elsewhere. A proof of the exigencies of these duties is that he was frequently inaccessible to his officers for a month together, and would neither read reports nor answer letters."

Speaking of railway directors, Mr. R. W. Perks, M.P., himself the legal adviser of several railway companies, said:— "As a rule, the average English railway director knew very little about the details of his line. . . . Directors were chosen because of their Parliamentary or territorial influence, and even now some of the directorates of the English railways were crowded with titled directors, who knew little of business life and still less of the democratic requirements and rewards of the present day. No more useful reform could be effected in railway management than to compel railway directors to have a very substantial interest in the undertakings they professed to manage, and to appoint to these important posts men who could take a direct personal interest in the condition of the workpeople, and have the sense not to resent as a personal affront any reasonable complaint which the men might have to present."

through a more complete organisation on behalf of national welfare.

Assuming that the State had the ownership of the railways, under the control and assistance of expert managers, with no longer the interests of shareholders to consider, but only those of the whole British nation, the task would not be so formidable as it looks. The object of purchase would be, as Sir H. W. Tyler stated it, to take the railways out of the hands of the companies, to work them in the interests of the public, and to contribute by the cheapest rates and fares to the utmost possible facilities of intercourse and transport. He would leave the executives of the companies unchanged, their attention being devoted not to competing with each other, but to the organisation of improvements not for the benefit of their individual lines, but for that of the general public.[1] He said, "The subject is to some overwhelming. The responsibility for the safe conveyance of so many passengers, for the safe collection, transport, and delivery of so much goods and mineral traffic scattered over the whole kingdom, for the economical working of so many engine works, and works connected with the maintenance and repair of the rolling stock, and the permanent way over such a system, is almost too much for certain minds to contemplate."[2] But with a staff such as the one suggested, we might almost claim the vote of the strongest opponent of State-ownership of railways. Mr. W. M. Acworth[3] says—"In a country with a bureaucracy as well trained and as well organised as that of Prussia, it

[1] Report, 1872, p. 833. Appendix N.

[2] Journal of Statistical Society, 1873. "Purchase of Railways by the State."

[3] "The Railways and the Traders." (Preface, p. 9.) Mr. Acworth's work is written on behalf of the Railway Companies' Association from the railway companies' point of view, and is an able argument on that side of the question.

may even be desirable." We do not doubt that the heads of our railway companies for this purpose would compare favourably with any officials in the world, though it has been said that some would be none the worse for a better technical and economical training.

If one railway authority controlled all the railways on behalf of the State, the whole of the railways of the kingdom would be practically amalgamated, the lines, stations, and warehouses of every company would be open to all, and the servants would be available for all. The one national interest would absorb and settle all differences and jealousies between the companies.

Of course the old "thin end of the wedge" argument comes in. If the State purchases the railways and canals, it is said "that the docks and the steamers connected with them must follow. The State should take the omnibuses, the carts, the tramcars, nay, the whole carrying trade, both home and foreign." And if these, why not all other industrial works, *e.g.* factories, etc.? This "wedge" argument, though often used, is fallacious. A generation or two ago, it was freely used against national education. Advocates of the so-called voluntary system went so far as to affirm that public State-supported schools logically required that it should write our books and edit our newspapers! It is gravely asked why, if the State owns the railways, we should stop short of Mr. Bellamy's wild proposals that it should become sole producer and distributor for the nation? What the State may do in Mr. Bellamy's twentieth century it would be rash to predict—the twentieth century will settle that better than the nineteenth can. The shibboleth of this age—"competition"—is dying with the century that gave it birth; it is not found so full of blessing, nor so essential to the exercise of individual energy as it was once believed to be. Educational progress, where

it was deemed indispensable, is fast discarding it, and this will extend to other fields of social action. We must not be frightened by words. In any case, competition is inapplicable to the railway system, which is essentially a monopoly, and falls under the condition stated by Mr. Frederick Hill. He says that "the true line (of distinction between things the State may and may not take up) is between things which can be multiplied indefinitely, and in which, therefore, there can be an effective competition, and those in which there is in the nature of things a monopoly." He might have added to monopolies cases of proved public utility. As Governments improve, more public work can be entrusted to them, and they in turn are improved by it. The process is gradual. Thus it happens that individuals make a highway or a bridge at their own cost, and as recompense charge a toll. In time this is found to be an uncertain, slow, and costly process, and the community makes its own roads and bridges. The Post Office was started as a private enterprise, and if it had remained one it would never have reached its present magnificent development. The telegraphs have followed this example.[1] The adaptation of it, the telephone, will do the same. Gas, water supply, tramways, are falling under municipal ownership. Electric lighting is now in the private, or company enterprise stage, but the examples of Bradford and St. Pancras (about

[1] It is singular that Alfred Vail, who, in conjunction with Morse, was the inventor of the telegraph in 1838, was much concerned with the question of the Government control of the telegraph, and the correspondence which is now in the National Museum at Washington, shows that both the inventors, and such statesmen as Henry Clay, were in favour of the United States Government owning and working the new invention, rather than companies or private persons. Vail, even in 1844, hesitated to accept a large offer for the invention until the State had had the refusal of it. (*North American Review*, March, 1892, p. 380.)

to be followed in other places) show that this, too, is likely to fall within the sphere of municipal government.[1] And when these public improvements are taken out of private ownership, those who led the way should be justly, even liberally, compensated.

So, too, railways fall under the class of things that the State ought to own in the public interest. It is admitted that private enterprise originated and perfected them, that it found the capital and energy to spread them over the country. The fair presumption, however, is that railroads, like all other roads, should be under public authority, and this is confirmed by practical experience. In other words, that to secure the full advantages of which the railway system is capable, it should be in the ownership of the State, as the trustee of the public.

[1] Bradford has expended nearly £150,000 in providing its own electric supply, and has thereby established the fact "that local authorities could establish and work these stations very economically, and to the advantage of everybody." Mr. W. H. Preece said "the Corporation who failed to introduce the electric light to their ratepayers, were neglecting a serious duty." —*Journal of the Society of Arts*, May 6th, 1892.

In the United States about 150 towns own and operate their own electric lighting plants.

A good example is supplied by the Berlin Corporation, which, after meeting all expenses of maintenance, management, and contribution to redemption of debt, make an annual profit of no less than £108,000, or 34 per cent. of their total revenue, out of supplying water. The cost of water is about 4s. per head of the population. In the matter of gas, the surplus last year was £250,000, which was passed to the city treasury for general municipal purposes. The consumers pay about 4s. 8d. per 1,000 English cubic feet, which price includes the cost of public lighting, as the gas department sees to all lighting. ("A Study of Municipal Government," by James Pollard.)

CHAPTER II.

AMERICAN EXPERIENCE.

"They virtually assume that society has irrevocably delegated to irresponsible private parties the right to determine what industries shall be built up, what particular individuals shall be driven out of business, what localities shall be developed, and what ones stunted and ruined. And since the fixing of rates does actually involve such results, it has simply become imperative that society shall resume its sovereignty, and regulate rates. The railways affect, far more vitally and generally than do other industries, the *future* of society. When built they are permanent. They must be used. The country will be developed along their lines. Their management and rates affect the development of society, not for a few years, but for centuries. Further, they have become the central industry. Their policy dictates in the main the policy of all other industries. It is this which makes the control of railway rates so manifestly a social function. It is the lack of necessary harmony between the *present* interest of individuals and the *permanent* welfare of society, which breaks down the principle of unrestrained competition as a general rule."—S. SHERWOOD.

THERE are three systems on which railways may be managed. They may be left uncontrolled to individual action, each company acting towards the public interest as seems best for its own, with practically little interference by the State on behalf of the public, as in America. Or they may be conducted for private benefit, but subject to a modified control, as they are in this country, under the State, that is, the Board of Trade. Or they may be, as they are to a great extent on the Continent, in India, and in our colonies, owned wholly or partially by the State, controlled and conducted with a view to the public interest solely. In other words, they may be either entirely subject to competition (which is impossible), to

regulated monopoly (which is inadequate), or to State ownership (which will be the ultimate outcome).

That the American railways have, from certain points of view, been remarkably successful, is beyond dispute. We know how great the effect of railways has been on the old civilisations of Europe, but in America they have done far more, for they have made civilisation possible by encouraging the growth of population, and covering that continent with innumerable centres of manufactures and trade. Availing themselves of all the skill and experience of Europe in mechanical details, the Americans added their own well-known inventiveness and energy, and regarded simply as instruments of locomotion, they excite the wonder of every traveller. While Europe squanders the resources of its peoples in keeping up armed hosts ever on the watch to destroy each other, America expends them upon her railways, which support an industrial army of over a million of men. Free from the feudal and class distinctions of the Old World, they have constructed their railways to suit the needs and comforts of the people. The absurd distinctions of caste, characteristic of English railways (slowly lessening, however) hardly affect the vast majority of travellers there. While in England over 80 per cent. travel third class, some of it very inferior, in the United States 99 per cent. travel in carriages at least equal to the excellent third class (so called) of the Midland and the London and North-Western Companies, or the second class of the London and South-Western Company.

The weak side of the American as of the English system is its social-economic one, arising from the opinion that the creation and management of railways could be left entirely to private enterprise, in fact to the laws of supply and demand; that they could not be too numerous, and that any defects and shortcomings would rectify themselves under the great law of competition, just as it is assumed to regulate

any ordinary commodity. The growth of our factory system in this country showed similar results and similar economic fallacies. Like the railway system, it was a marvellous application of mechanical invention; it made our country the richest in the world, but was accompanied by evils now partially remedied by legislation, in face of the strongest opposition. In the United States, though much inadequate legislation has been tried to remedy some of the evils of their railway system, it was believed there, just as Mr. W. M. Acworth now asks us to believe, "that a railway company is only a shopkeeper on a large scale, anxious to make the best profit it can on the solitary article in which it deals, transportation, and desirous, like every other shopkeeper, to give better value to the public for its money than the shopkeeper in the next street. The more we can bring ourselves to realise this, the less shall we be inclined to lay down for the railway company *à priori* rules how it ought to conduct its business."[1] In other words, leave the companies to manage the lines in their own way, and the result will be that which is best for the community. Therefore don't interfere with them. In the haste to create them, their public function was forgotten. Where a district wanted a railway, it succeeded in building one, regardless of its relation to the general wants. Acting on these principles, the Government of the United States exercised no control over the undue multiplication of railways, regardless of the fact that a superfluous railway not only injures its competitors, but withdraws or rather wastes the capital of the country, and induces them to endeavour to levy upon it a payment for two capitals where one would serve. Nor did it take precautions to secure that the line was properly completed before being used for traffic. Mr. Kirkman points out that railroads in the United States, as in

[1] "The Railways and the Traders," p. 174

other new countries, are opened long before completion[1] in order that they may be earning something. When the capital does not suffice, expenditure is taken from revenue, the two are jumbled, and often the necessary work is indefinitely postponed.

How has this system acted in America, where the railway companies have had more liberty to do as they liked than anywhere else? America has nearly 170,000 miles of railway, which is more than the whole of Europe possesses, and many hundreds or thousands of miles are being added yearly. If the result had been to place them just where they were wanted, and after paying a reasonable dividend to the proprietors, giving all surplus advantages to the public, there would be no complaint. State interference would not be called for. There was, however, State interference, but of the wrong kind, for the creation of railways was unduly stimulated by the grants of land which Congress and some of the States voted, with that magnificent liberality that seems in all new countries to disregard the future, and leaves posterity a heritage of evil. To secure the

[1] "It has caused the acceptance of many lines that otherwise would have remained in the hands of the contractors or builders. It has caused the acceptance of roads with grades so abrupt as to render the property worthless for many purposes to owner and public; the acceptance of tracks barren of ballast, laid perhaps on the unraised earth; of light iron, and poor ties, where neither should have been used; of ditches, the width, slope, and depth of which were ridiculously inadequate; of embankments so circumscribed and narrow as to barely preserve the equilibrium of trains; of cuts through mountains and hills hardly wide enough to admit the passage of trains. It has caused the acceptance of pasteboard bridges and culverts, giraffe-like tressels, inadequate yards, and incomplete platforms; the opening of roads without sidings, fences, or signals, etc." "Railway Rates and Government Control," p. 287. Mr. Kirkman praises the State regulations in England and elsewhere which prevent such abuses, but as an extreme opponent of Government interference with railways, it is hardly consistent. He should leave such evils to cure themselves?

grants of land, the railways had to be completed by a prescribed time. But though land was plentiful population was not, without which railways could not pay, and the mileage was increased far beyond the possibility of speedy profits on the capital invested. There was another ill effect. The enormous grants of land made the railways into wealthy corporations powerful enough to influence Congress itself by their votes. The Northern Pacific received 47,000,000 of acres, the Atlantic Pacific 42,000,000, the Union Pacific 13,000,000, and the Central Pacific 12,000,000. The first grant was in 1850 to the Illinois Central Railroad Company, which received alternate strips of land, one square mile to the railroad, the next to the State, and so on on each side along its entire length. From one-mile limits the grants grew to thirty, forty, and even fifty miles on each side of the main track, and included all the coal and iron beneath the surface! As Mr. Galvani says, "The grand total of the lands so squandered for the benefit of the 'public-spirited' railway companies, whose paid attorneys represented (?) the people in the United States Congress, amounted to 211,890,489 acres,[1] and does not include the lands granted to waggon road and canal companies for the same objects. One result was the creation of a far greater supply of railway accommodation than even the most lavish estimate could require."

Our highways preceded the railways. In America it was the reverse; and the absence, still very usual, of good high-roads, the energy of the people, and the rapid growth of wealth, gave an extraordinary stimulus to the extension of railways. The system of separate States of the Union, each with independent government, prevented their railways being planned on a national scale with sole reference to what was best for the whole country. Hence there

[1] From returns of the United States Land Department

is little unity in the American railway system.[1] Each State of the Union had sole power to authorise its own railways. If a railway passed the State boundary, it could only do so subject to consent of the State into the territory of which it passed. The central government could not interfere with this arrangement, though in the case of a railway of great national importance, Congress granted public lands and subsidies, as in the case of the Pacific railways, through territories not yet States. The earlier charters given by the States to the railway companies were liberal —anxiety to have the benefit of cheap and rapid communication forbade too close a scrutiny of conditions. And when private monopoly brought its usual evil results, the remedy was not sought in regulation, which seems unsuited to the opinions, if not the genius, of the race, but to competition. They, too, entertained the English superstition that railroad competition was possible and also beneficial to the public, and, while they multiplied lines far beyond existing needs, the States even passed enactments to obstruct consolidation of railways. Rate wars, however, are so numerous, competition is so disadvantageous, that even in 1891, eighty-four companies merged into or amalgamated with some existing companies, while to ensure stability and prevent fluctuations traffic arrangements are constantly being made. In the United States railways, competition has had a free hand, both in the inception and management,

[1] Mr. Kirkman points out the confusion that necessarily arises between State and interstate traffic, and "the impossibility, in many instances, of determining where the jurisdiction of one begins and the other ends." He believes that it will ultimately have the effect of consolidating the relations between the general government and the State governments. "Much of the interstate traffic of a railway appears as State traffic; much of the interstate business cannot be identified." ("Railway Rates and Government Control," p. 295 to 301.)

and what is the result? Mr. Acworth,[1] who would leave them to competition, says that the American railways "fail to keep their frequently renewed agreements to maintain rates. Hence has ensued wholesale bankruptcy of companies, with enormous loss to innocent shareholders; reckless discrimination between local rates and competing rates; flagrant dishonesty in preferences given to big traders over smaller rivals; secret rebates and discounts which have sapped the very foundations of commercial morality; and uncertainty which has made what should have been legitimate trading, often little better than mere Stock Exchange gambling." And then he cites the fact, "That between Chicago and Cairo, a distance of 367 miles, there are twenty-two railway companies whose lines cross that of the Illinois Central—eighteen of the twenty-two have passed into the hands of a receiver since 1874."[2] He mentions

[1] "The Railways and the Traders," p. 152.

[2] The following summary of the foreclosure sales for the past twelve years shows the risks of investors in American Railways :—

Year.	Companies.	Miles.	Capital.
1880	31	3,775	£52,776,000
1881	29	2,617	25,584,000
1882	16	867	13,085,000
1883	18	1,354	7,420,000
1884	15	710	4,700,000
1885	22	3,156	55,699,000
1886	45	7,687	74,821,000
1887	31	5,478	65,636,000
1888	19	1,596	12,911,000
1889	25	2,930	27,561,000
1890	29	3,825	36,499,000
1891	26	2,159	16,896,000
Total in 12 years...	306	36,154	£393,588,000

During the first six months of 1892, twenty-four railway

the "deliberate deceptions" to conceal the special rates given to favoured individuals, consignments sent intentionally less than stated, and compensation given for the non-existent goods ; a cashier made a railway agent, and, under the name of commission to him, an enormous rebate allowed to his employers ; etc. etc.

The creation of duplicate and triplicate lines, where one would suffice, is explicable when it is understood that the constructors frequently did not contemplate working them themselves, but to sell the new parallel line at a high price to the existing line to avoid competition. The new stock had to pay a high profit on both. "When roads have become bankrupt or embarrassed, reorganisations have been effected by increased capitalisation in order to harmonise conflicting interests. It is estimated, and probably with approximate accuracy, that railroad bonds and stocks in the aggregate are double the cost of the properties, and certainly double what they are now worth."[1]

companies, with 9,179 miles of road, and representing bonds and stocks to the amount of $309,800,000, became insolvent, and were placed in the charge of receivers for the benefit of their creditors.

[1] "The Railroad Problem," by the Hon. L. A. Sheldon.—*The Arena*, Feb., 1892.

Professor Hadley thus describes the process, no doubt supplied by a real example :—"Let us take a specific case. An inside ring issues stock certificates to the value of a million of dollars, on which perhaps a hundred thousand is paid in. They then publish their prospectus, and place on the market two million of bonds with which the road is to be built. They sell the bonds at 80, reimburse themselves the 100,000 dollars advanced by charging the moderate commission of 5 per cent. for services in placing the loan, and have at their disposal 1,500,000 dollars cash. These same directors now appear as a construction company, and award themselves a contract to pay 1,500,000 dollars for work which is worth 1,200,000 dollars only. The road is finished, and probably does not pay interest on its bonds. It passes into the hands of a receiver. Possibly the old management may have an influence on his appointment.

Competition between railways in England, as compared with America, has been much more restricted, and has always proved unprofitable to the companies, with little gain to the public. But in America, where there has been hardly any check on the creation of competing lines, the constant reduction of rates has been disastrous to the shareholders. Lines that were paying 7, 8, or 9 per cent. ten years ago, pay no dividend whatever; while on 73,000 miles of railroad in the eleven States west of the Ohio and Mississippi rivers, earnings increased, from 1870 to 1888, from twelve to eighteen dollars *per head* (or 50 per cent.), the earnings per mile (the true test) in the same period fell from 6,573 dollars to 5,728 dollars per mile; a falling-off of 845 dollars per mile, or 61,685,000 dollars in the year. The railways in some districts have been "built like the bars of a gridiron." "There are six different trunk lines between New York and Chicago, a distance of about 1,000 miles. Between Chicago and St. Paul, about 500 miles, there are five competing trunk lines. Between Chicago and Omaha, the terminus of the Union Pacific lines on the Missouri, are four

At the worst they have got back all the money they put in, plus the profits of the construction company—in the case supposed, 300 per cent. The bondholders, on the other hand, have paid 1,600,000 dollars for a 1,200,000 dollars' road. But the troubles of the bondholders and the advantages of the old directors by no means end here. When the receiver takes possession, he discovers that valuable terminals, necessary for the successful working of the road, are not the property of the company, but of the old directors. He finds that the road owns a very inadequate supply of rolling stock, and that the deficiency has been made up by a car-trust—also under the control of the old directors. Each of these things, and perhaps others, must be made the subject of a fight or of a compromise. The latter is often the only practicable alternative, and almost always the cheaper one; by its terms the ring perhaps secures hundreds of thousands more at the expense of the actual investors."—("The Railways of America." A. T. Hadley, pp. 355-6.)

competing trunk lines. Three lines each start daily trains, which leave Chicago and arrive at their destination simultaneously, travelling by separate routes. Between Chicago and Kansas City, 600 miles, there are five trunk lines whose trains start and arrive simultaneously ; and between Chicago and St. Louis, four lines." No wonder that "few if any American railroads have earned a fair return on cost."

Under the American plan the railways have become subjects of speculation on an enormous scale, so that whole systems of railway communication came under the absolute control of a few men, who as they agreed or disagreed, raised or depressed the value of the shares, making vast sums in the process, and controlling absolutely fares and rates as the exigencies of their speculation demanded.[1] It was all very pleasant in the early years of the railway growth. The new country needed the new railways, and there as here, methods and principles were not much considered.

[1] The New York correspondent of the *Daily Oracle* says :— "There was a constant struggle, not only for life, but also for supremacy. Everyone was attempting to crush his rivals, and to conquer them ; but, at the same time, every railway had to be protected against being destroyed and defeated itself. A president or manager whose line was sold or leased to another became dethroned ; one who bought other properties became more powerful, saw an increase of power, prestige, and of his private income ; and the consciousness that this was so lent a personal piquancy to the bitter fight, and rendered it the more interesting. There are in the annals of finance hardly any pages as interesting as those describing the defeat of Vanderbilt in his attempts to conquer the Erie Railroad, and every railway was an Erie, and had its Drews and Vanderbilts in a small way. The battle was usually decided by the strength of the armies, by the wealth or magnitude of the companies, by the skill of the generals and their intellectual resources. Sometimes a dozen small companies would be conquered with one single stroke by a great system, which thereby saw its power and its influence doubled. Sometimes a clumsy Goliath corporation found a skilful David, who erased its name from the rolls of existing lines, and suddenly became a great railroad itself."

Railways were authorised, but companies fixed their own rates, even though connected with other lines. "These rates and classifications are the battle ground for all the innumerable rivalries of trade and commerce. Every city is here at war with every other city, every railroad with every other road, every industry with those which rival it, and every individual shipper is a skirmisher for a little special rate or advantage all to himself."[1]

Competition had to be corrected by consolidation, which was carried out on a grand scale. Thus the Pennsylvania system of 8,000 miles is made up of seventy smaller lines—the Erie of forty. The Atchison system, now 9,300 miles, grew from one small line. Three years ago 2,450 minor lines were absorbed into the thirty-three large companies which own 77,000 miles, and to which other additions have been made. Altogether, about 150,000 miles belong to seventy-five companies. A similar process took place in England, only on a smaller scale. We had one railway king who for a brief period was able to dictate the railway policy of this country. But the United States can boast of many. It is said, but has been denied, that "the Vanderbilts hold complete sway of a system said to include 25,000 miles of the best lines; the late Jay Gould controlled the two principal systems in the South-East and South-West, the Richmond Terminal and the Missouri Pacific; Huntingdon owns the Southern Pacific; Rockefeller the Northern Pacific, Wisconsin Central, and 'Maple Leaf'; and men like Pullman, Leiter, Armour, Swift, etc., are said to form a clique controlling most railways in the North-West; while Astor and other millionaires command other systems."

As already stated, for the construction of certain important transcontinental lines, Congress gave

[1] General E. P. Alexander, "Railways of America," p. 177.

enormous grants of land, with subsidies and guarantees against first mortgages. These, however, were transformed into second mortgages, and one of the difficulties Government experiences is to get back the interest. It has been the same in other countries. Subsidies in such cases without ownership might almost as well be gifts as loans. To one railway, the "Western," the State of Massachusetts advanced money, stipulating that it should have the option of taking the road whenever the earnings upon it should suffice to repay the capital with 7 per cent. dividend. The plan proved most successful, but the company was equal to the occasion, and gave two million dollars dividend to the shareholders, created fictitious capital, and defrauded the State.[1]

American railway promoters, however, soon found more skilful methods than watering stock. Though illegal, they organised what Mr. Bonham terms "parasitic" companies, which enable the "managers of the road to contract in their *official* capacity, with themselves as *individuals*, and to associate themselves with the shareholders of the parasite for their individual profit and interest, against that of the owners of the railway."[2] This was the plan pursued by the Pennsylvania Railway, which commencing as a line from Harrisburg to Pittsburg absorbed a large number of other lines, and now embraces 8,000 miles of railway, and a capital of 700,000,000 dollars. But they distributed their illicit profits among a considerable number of persons, and therefore these "did not amount in the particular case of any one of these managers to more than ten or twelve millions of dollars."[3] Perhaps, like Warren Hastings, they were astonished at their own moderation. Another railway, the Baltimore and Ohio, Mr. Bonham says, "carefully measured the capacity of local industries

[1] "Industrial Liberty," by Bonham, p. 101.
[2] Page 105.
[3] Page 114.

along the line of the road, and took all (in excessive rates) save so much as would allow those industries to exist."[1] But their exactions went to the shareholders, in this respect the single exception among the trunk lines. The New York Central Railway *diverted* (misappropriated) its profits to fewer associates than the Pennsylvanian lines. Its "managers skilfully linked roads together; depressed the value of contributing roads; seized the ownership of these roads and converted them into parasites for wholesale diversion, always, however, as strictly as possible under the forms of law. The illicit profits from all sources flowed into one reservoir, and made the bulk of accumulation, in the instance of the Vanderbilt management, the most enormous individual accumulation which this country has ever witnessed"[2]—estimated now at over 30,000,000 sterling. But the Erie Railway surpassed them all. It manipulated (bribed) Legislatures, and by the aid of two New York judges, set public and shareholders alike at defiance, rendered no account to shareholders, but at times appropriated everything, and when at last its managers were forced to surrender, they, by a gigantic operation on the market, made an immense profit. But enough. One is tempted to ask where the benefits of competition and the freedom from State control come in. The worst State system conceivable could not surpass this. At least we should know whom to hang.

One specimen of railway manipulation that recently attracted attention, was furnished by the Richmond and West Point Terminal and Warehouse Company. It was not a working railway company, but a corporation acquiring majorities of stocks in numerous lines. The charter of the Richmond and Danville Railway prohibited it from owning lines outside Virginia, but this was evaded by the device of the West Point Terminal Company. It was so successful as to enable

[1] Bonham, p. 113. [2] Bonham, p. 115.

the two companies to extend their control from the original 226 miles of the Richmond and Danville, to nearly 9,000 miles. By taking a little more than half of the shares of the Terminal Company, it acquired the preponderance of the voting power. Such operations are kept secret until the time to strike arrives Skilfully managed, directors sell their own private property to *themselves as trustees* for others, thus making a profit at the expense of those for whom they are fiduciaries ; all is done in legal form, but some are able to acquire large profits at the expense of others. By successive issues of stock, small lines were bought up, some at very low prices, the two principal companies holding enough stock to secure a controlling interest. By such operations the Danville common stock, which before the organisation of the Terminal Company stood at 95, was raised to 250, and that of the Terminal Company to 263, and now fallen to 7. Investigation showed that certain trustees of the Richmond Terminal Company and their friends profited to the extent of between three and four million dollars in the sale to the Company of the Georgia Central Railway. After much stock-watering, jugglings with the property of credulous holders, struggles to raise the money to pay interest on lines that could not support themselves, Nemesis came in the shape of a receiver to wind up the affairs of the related companies, only Nemesis came to the wrong parties. Those who betrayed the shareholders, pocketed the money and unloaded the stock on the silly gamblers of the Stock Exchange.

Under such conditions it is not surprising that the railways, however beneficial to the nation as a whole, have not adequately rewarded those who have provided the capital to make them.

Mr. Acworth says "that the profit on American railway investments is steadily but not slowly diminishing year by year, and that in the last year for which

statistics are available, the average rate of interest paid by the United States railways was, on ordinary stock 1·91 per cent., on preference stock 2·11, while on the whole capital invested, both in stock and bonds, it was only 3·10. Of the stock, nearly two-thirds paid no dividend whatever, while more than 18 per cent. even of the bonds were in default."[1] Most stock, however, has been paid for at little above 50 per cent. of its face value, and loss has been caused less by *inadequacy of earnings*, than by *theft of money earned.*

According to the report of the Inter-State Commission (June 30th, 1890), the total stock of American railways that paid *no dividend whatever* was 63·76 per cent. (the previous year it was 61·67 per cent.). Much, however, of the 63·76 per cent. is "watered" stock, for which, therefore, allowance must be made. The amount spent upon English and American railways is curiously similar, although the mileage of the latter is eight times greater. But we think it a shocking anomaly that of our railways some £50,000,000 sterling, or nearly 5 per cent. of the whole, pay no dividend. What should we think if more than half our total railway stock paid *nothing whatever!* Rather a startling price to pay for free competition.

The following are the figures :—

Total ...	...	$4,409,658,485 or £881,931,697
10% and above	...	$77,567,775
From 9 to 10%	...	$15,311,773
From 8 to 9%	...	$105,888,677
From 7 to 8%	...	$166,348,231
From 6 to 7%	...	$287,823,033
From 5 to 6%	...	$294,997,897
From 4 to 5%	...	$364,181,387
From 3 to 4%	...	$127,700,779
From 2 to 3%	..	$66,470,311
From 1 to 2%	...	$91,842,070
Nothing Paid	...	$2,811,526,552 or £562,305,310

[1] Acworth on "Railways and the Traders," p. 208.

Against this gloomy picture of American railways must be set the fact that many of their lines have preceded, almost created, the population they serve, and therefore must sometimes exist before dividends could possibly be expected, and will pay hereafter. Another favourable circumstance for them is that though many lines were made by the aid of mortgages and bonds raised at high rates of interest, 7, 8, and 10 per cent., these obligations are not perpetual, but will within a few years be replaced at much cheaper rates (probably half). Enormous sums fall under this description, and the American shareholders will enjoy to a certain extent the advantage possessed by the French, Austrian, and even Spanish and Portuguese, and our own Indian Empire, into the possession of whose Governments some day the railways of those countries will fall. Had the capital for English railways been raised on similar conditions, the shareholders, as in America, or the Government, as in India, would enjoy advantages which are now remote indeed.

There are, however, not only the railway companies, but also the express companies, which forward parcels and light goods requiring quick transit, and charge more than double the highest rate for ordinary freight. "The whole of this vast business is quite uncontrolled by law. The express companies are under no obligation to publish their tariff. They may, and apparently do, charge different prices for the same services. They may practically refuse to give any service at all to a small place where they see no prospect of making a profit."[1]

People wonder sometimes how the American millionaires become so numerous and so rich. With such facilities for manipulating the great industries of the country by means of "trusts," and the opportunities afforded by the formation and control of the numerous railways, the wonder ceases.

[1] Acworth, p. 246.

Any amount of dishonesty is shielded under the fine names of "Enterprise," "Freedom of Industry," "Stimulus of Competition," etc. As Mr. Bonham says, "By this management a few individuals at the head of leading railroads have arisen from obscurity into immense affluence and power. These men are not, in general, engaged in any manufacturing or commercial enterprise. Their whole occupation has consisted in directing and managing these artifices of appropriation. And yet their malversation has made them prosperous and wealthy far beyond the wealth and prosperity of the men who have pursued the most profitable lives of regular industry."[1]

It is a serious objection to this quasi-private ownership of what should be public property that it gives undue advantages for those intimately conversant with the receipts from goods and passenger traffic to speculate to the disadvantage of the outside public. The railway manager "may make money *for* the investors, or he may make money *out* of the investors." The inner circle, knowing daily and before anyone else the returns, know also when to "bull" and when to "bear" the stock, and may be said to play with loaded dice. The process is better understood in America, but it is not unknown in England.

One gross instance of this abuse of railway power was that of the Standard Oil Company, which engaged three trunk lines to give it secret rebates (from forty cents to over three dollars per barrel). It was to receive a rebate on all oil carried for other persons, and as these had no alternative, a storm of public indignation threatened destruction of the Oil Company's plant, and baffled the conspirators for a time. But it was only for a time. Another trunk line joined the plot, and by their combined action the Oil Company was enabled to control 95 per cent. of the whole refining trade of the United States, to parcel

[1] "Industrial Liberty," p. 109.

out the traffic, not only between the trunk lines, but between the different cities, and to increase its original capital tenfold in a very brief period.[1]

It is not merely the evil influence thus operating upon American railway property, but the railway corporations exercise an equally detrimental pressure on other industries—on the growers of corn, the owners of coal mines, etc. Mr. C. Wood Davis, himself an auditor of railway accounts, points out how some are plundered by discriminating rates to benefit their competitors, the spoil being shared with the officials. He states that "there are but few coal-fields where they do not fix the price at which so essential an article shall be sold, and the whole nation is thus forced to pay undue tribute."[2] You may own a coal-field, but whether you may have trucks to convey the coal to the consumer depends on whether the railway company is your partner or your opponent. A committee of the New York Senate, investigating the circumstances connected with the recent combination of anthracite coal interests, says: "It is plain, however, to your committee that this is a matter that would rest largely in the discretion of the carrying companies, and in case the roads not now in the combination should become part of it, there would be, under existing laws, no protection for the consumer, who would be at the mercy of the carrying companies, and the limit as to price could be fixed according to the views of such companies as to their own best interests." The *Boston Herald* (Sept. 30th, 1892), speaking of the Reading-Lehigh combination, says:

"If the public can be forced by clever financial manipulation to sustain a burden of this kind, then obviously our laws regulating such matters are entirely inadequate, and the ordinary

[1] "The Railways and the Republic," Chapter iii.—"The History of a Commercial Crime." By J. T. Hudson.

[2] "Should the Nation Own the Railways?" By C. Wood Davis. *The Arena*, August, 1891.

citizen is at the mercy of shrewd operators, who have no more conscience in demanding unearned money than had the robber barons of the middle ages. These latter used to set the law at defiance, but their total exactions would form but an insignificant fraction of the enormous, wide-spreading tax which these new toll-gatherers succeed in collecting by taking advantage of loopholes in the law."

To protect themselves in the courts, the railways are estimated to spend about 14,000,000 dollars yearly in legal expenses, or 2 per cent. upon the total cost of working the roads. This cost is "incurred in endless controversies between the corporations, in wrecking railways, in plundering the shareholders, and contending against State and Federal legislation, in manipulating elections and legislation, and in wearing out such citizens as seek legal redress for some of the many outrageous acts of oppression practised by the corporations." [1]

In America the system of free passes, much of it for bribery, was prevalent. Mr. Wood Davis, an executive officer issuing passes, estimates that "fully 10 per cent. travel free," a tax on those who do pay of 30,000,000 dollars. Vast numbers of blank passes are signed for the use of the "lobby agents," and no report is furnished to anyone, not even to the shareholders. The Interstate Commerce Commission emphatically condemn it as unlawful and as an unjust discrimination against ordinary travellers, and has greatly improved railway property by its prohibition.

Heavy commissions are paid to agents, outside brokers, for diverting passenger traffic and "influencing" freight traffic, and these sums, frequently divided with railway officials, he estimates as another tax upon the public of 20,000,000 dollars per annum. Even the railway corporations "have ineffectually wrestled with the commission evil, but it is so thoroughly entrenched, and so many officials have

[1] Ibid.

an interest in its perpetuation, that they are utterly powerless."

To prevent 500 railway corporations overreaching each other, "absorbing an undue share of the traffic," there are sixty-eight traffic associations. Mr. Wood Davis says their labours are in vain, but these "costly peace-making attachments," he estimates, impose another burden upon the railways of above 4,000,000 dollars.

Then he estimates that 500 (out of a total of 600) companies maintain costly general offices and an expensive staff. "So far as the utility of the railways is concerned, as instruments of anything but speculation they might as well be located in the moon." He puts their cost at another 25,000,000 dollars.

To this expenditure he adds 7,000,000 dollars for advertising, of which he says that 5,000,000 dols. would be saved if, as under a national system, it were limited to advertising the arrival and departure of trains.

Then there are the freight and passenger officers with their "hordes of agents, solicitors, clerks, etc., for securing their shares of the competitive traffic," which he estimates at another 15,000,000 dollars of wasted expenditure. Altogether he estimates the unnecessary expenditure upon railways at 160,000,000 dollars, which might be saved if they were nationalised. This is in addition to the profit, which would be nearly an equal sum.[1] We

[1] Mr. Wood Davis states the cost of 160,000 miles of American lines at an average of 30,000 dollars per mile, total, 4,800 million dollars, but to prevent a complaint of unfairness to the owners, he would add 25 per cent., making 6,000 million dollars. He estimates—

Interest at	180,000,000
Maintenance and working ...	670,000,000
Sinking Fund	50,000,000
	900,000,000

present income 1,050,000,000, leaving a profit to the State of

express no opinion as to the correctness of his figures, but as he proposes to pay the owners of *much water* (watered stock) and give them 3 per cent. bonds, which is above the average dividend on American rails, the owners would not do badly.

Apart from the pecuniary loss, there is "the indirect, but no less onerous tax levied upon the industries of the country by the thousands of speculators who make day hideous on the Stock Exchanges," and which "would be abrogated, as then there would be neither railway share nor bond for these harpies to make[1] shuttlecocks of." As he says, in time of panic and depression, half a dozen rich men can so work the money market as to get the absolute control of certain coveted railways. "If only for the purpose of divesting the dangerous wealthy classes of this frightful power, national ownership would be worth many times its cost, and without such ownership a score of manipulators are soon likely to be complete masters of the Republic and all its industrial interests."

Mr. Wood Davis refers to the over-capitalisation of railways, sometimes at over five times their actual cost, of railways built with public funds lent at interest, but no part of either principal or interest ever repaid, of bribes given to officials to certify the good construction of imperfectly constructed lines, of

150,000,000. It does not affect Mr. Davis's argument, but, the figures according to the Report of the Interstate Commerce Commission (30th June, 1891), the capitalisation was 9,829,475,015 dols., and the gross earnings 1,096,761,395 dols., and net 364,873,502 dols. Half the mileage (16,840,274 miles) was owned by 42 companies. Net earnings 37 dols. per mile less than the previous year. Income bonds have increased from 76,933,818 dols. to 324,288,690 dols. A considerable portion of this increase is probably due to a conversion of stocks into income bonds. It is significant because it shows an increase in that form of property for the management of which directors are not held to strict responsibility. Equipment trust obligations have also increased from 49,478,215 dols. to 54,755,157 dols.

improvements ready to be introduced into one line deferred because of the delay of the other, and so on.

Against these charges it is said that the rates and fares by the American lines are the cheapest in the world, and there is, no doubt, substantial truth in this statement. It is so in passenger fares,[1] and also in freights. In his defence of the American system, Mr. Morgan cites the reductions in freight of the leading trunk lines of the States per cent. These were as follows :—

	Cents.
1868	2·453 per ton per mile.
1873	1·803 „ „
1883	1·055 „ „

And the average charge for the transportation of wheat, which was in 1868 42·6 cents per bushel, gradually fell in the following sixteen years to 13 cents per bushel.[2]

These reductions are claimed as the result of competition. If that were true, and if we could not secure cheap travelling and carriage without it, it would have to be submitted to as part of the dispensations of Providence, like storms and earthquakes. It is not, however, true that competition is the *sine qua non*, the sole condition of cheap carriage. Like the cheapness of a newspaper, which gives for a penny the history of the whole world each day, it is economy of cost

	Per Mile. First Class.	Per Mile. Second Class.	Third Class.
	Cents.	Cents.	Cents.
United Kingdom ...	4·42	3·20	1·94
France	3·86	2·88	2·08
Germany	3·10	2·32	1·54
United States ...	2·18	—	—

[1] General Horace Porter, "American Railways," p. 265.

[2] "The People and the Railways," Morgan, p. 108.

spread over a vast circulation that renders cheapness possible. So with railways. Within the last twenty years cost of working has been reduced some 60 per cent.[1] The substitution of steel for iron rails, itself an advantage in lessened need of renewals, permitted the substitution of cars of twenty or thirty tons for those of ten or fifteen tons, of heavier trains, and of diminished fuel in proportion to weight, while consequent cheaper freight increased traffic, which in its turn rendered a greater profit possible upon a lower than on a higher rate. Competition has benefited American traffic just as little as Protection aided American prosperity, though each is sometimes credited with it. Competing rates prevailed from time to time, but they were so ruinous that a remedy was sought in consolidation, and agreements of various kinds. Even if lower rates were the effect of competition, that is only one side of the account. What of those whose capital constructed them?

To those who look at the cost to the consumer thus measured, these reductions must appear a matter of rejoicing; but to those who look at total national loss, even though it fall mostly on the owners of the capital invested in railways, the benefit is considerably qualified, especially if the same, nay, greater advantages, could have been obtained without the waste of capital, to say nothing of the ruin and demoralisation which accompanied it. That more than half of nearly £1,000,000,000 sterling of capital should earn nothing can hardly be called a success. Mr. Morgan mentions

[1] In the New York Central Railway the traffic increased fivefold in twenty years, and the rates fell from 3·09 cents per ton per mile, in 1866 to 0·76. The following facts show the progress on that line:

	1889-90. Cents.	1880. Cents.	1870. Cents.
Average rate per ton-mile ...	0·76	0·87	1·88
Average expense per ton-mile	0·56	0·54	1·15
Average profit per ton-mile ...	0·20	0·33	0·73

an instance where, in answer to a demand for higher wages, the chairman of the company informed the employés "that in twelve years they had not only not netted a dollar, but had actually mined and distributed 51,000,000 tons of coal at a cost of 51,000,000 dollars, and paid 53,000,000 dollars for the privilege!" Such instances, which might be multiplied, so far from making for private property in railways, as this writer believed, prove the contrary. They are the *reductio ad absurdum* of the American system. Every remove from it, as exhibited in other countries, shows better results; and the more remote from free competition, the less the conflict of interests, the better the reward for the capital invested, and the greater the advantage to the general interests of the public.[1]

In America the railroad companies (as formerly did our own) regard their property as private business with which Governments and Legislatures have nothing whatever to do, and this opinion is still entertained by no inconsiderable number of persons in this country. Any invasion of it here is denounced by them as another aggression of State Socialism, an invasion of the rights conferred by Act of Parliament, on the faith of which they subscribed their capital, and which

[1] Mr. Adams says: "The whole complicated system under which through or competitive railroad business is done is curiously vicious and extravagant. . . . . It now implies the presence of a vast army of subordinates whose very existence depends on that not being done, which those controlling the lines which feed them are continually trying to do. . . . . A great number of expensive offices bear the signs of Railroad and of Car and Despatch Companies. . . . . The rents, salaries, and perquisites of the army of retainers who occupy these offices come out of the railroad corporations, and the interests of the retainers and the corporations are exactly antagonistic—the first are always working to bring about railroad wars, in which business with them is brisk, while the last are striving to effect combinations." ("Railroads, their Origin and Problems," by C. F. Adams, p. 192.)

was therefore to be held sacred. It was not until the intolerable though logical results of this doctrine became manifest that it was in part abandoned. It has had to yield to the view that the public had also some interests to be cared for, which competition did not protect; but this latter view was accepted so inadequately that little practical advantage was derived. Alternations of competition and combination, ruinously low rates at one time, exorbitantly high rates at another, dividends paid though not earned, and pretended large balances in hand—really non-existent, but which serve the momentary purpose of selling shares at high prices—seem to have become the normal state of things; and even when rates were agreed upon, competition for business under them was violent, because there was not traffic enough to engage both the lines that were needed and those that were not. An amalgamation of competing lines is the only way to prevent the war of rates and consequent ruin to the capital involved. But amalgamation *not controlled by the State* is but another name for public robbery. Hence most governments, whether owning the railways or not, take some supervision of rates and fares.

Mr. Marshall M. Kirkman endeavours to show that interference can only be injurious. Speaking of special rates, he defines them "as those that are given to particular individuals to meet especial emergencies—a rate lower than the established tariff." How prevalent these "emergencies" must be is shown by his statement, that by the Interstate Commerce Act, "the carrier must in every case where he gives a special rate, print and post a tariff therefor. Thus the railway companies are annually subjected to the expense and annoyance of printing millions of tariffs, each tariff particularly governing a particular rate for a particular individual," the publicity being thought necessary to protect the community from collusion between carriers and traders. He approves of

unrestricted special rates, and seems only to object to compulsory publicity.[1] He would leave the rates of carriage entirely uncontrolled, to be settled solely between carrier and trader. Any attempt to fix rates he regards as a practice of mediæval governments of fixing the price of bread, etc.

Of course under such a *régime*, anything like uniformity of charge for the same service is impossible except by accident. The "higgling of the market" is to be the sole guide, and producers and consumers, sellers and buyers, would find their respective transactions most difficult of adjustment. The attempts of most civilised countries (including America itself) to have as near as practicable a fixed and published tariff of charge for the use of the trader are, according to this view, an economic delusion, to terminate when competition is fully and fairly carried out.

As unrestricted competition in the carriage of goods is so excellent, why not also let every fare be adjusted between the traveller and the booking clerk? A miserable police law compels a cabman to accept less than he could frequently obtain from his customer's necessities. Why not let him charge "special" rates?

This view seems to have infected the Interstate Commerce Commission itself. It says, "Rates are never measured exclusively by the weight of the article carried, or by the bulk, or by the cost to the carrier of transporting them, or by the value to the owner in having them transported." This seems to leave the matter very much at the discretion of the railway, for the trader is powerless.

As a method of preventing railway wars and preventing ruinous competition, pooling has been warmly advocated. One high American railway authority has stated his view to the writer as follows: "It certainly is a fact that *something must be done* in

[1] "Railway Rates and Government Control," p. 117.

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order to save the American carrying properties from ultimate ruin. At present I am inclined to believe that the most promising method may be developed from legalised pooling, with proper restrictions that will guarantee the public a safe and efficient service at just and reasonable rates ; and that will protect the carriers and the public against the consequences that follow the creation of needless carrying routes." So, too, Mr. Kirkman admits that many roads were built for purely speculative purposes, or to satisfy the sentiments of petty districts ; that many of them would not have been allowed "had permission from an impartial government road been required ;" but he trusts to the process of evolution to reduce the chaos to order, and suggests pooling under Government protection, as the great alleviating remedy. "No other country in the world so greatly needs the aid of this device as the United States, because of the chaotic nature of its railway system, and yet the United States is the only country where it is denied to carriers." The refusal he attributes to the ignorance and demagogism that taught the American public to look upon railway companies as extortioners and public robbers, to be weakened as much as possible—surely a singular delusion if without grounds.

The object of pooling is to unite competitive traffic into a common total, the results being divided among the various companies in certain proportions, and removing the temptation to lower rates in order to obtain traffic. It does not apply to traffic, *not competitive in character.* Thus it is difficult to see how pooling is to benefit anybody but railway companies. The Standard Oil Company and the railway companies that supported its monopoly made a very successful pool—for themselves. This is the weak point. There is no objection to pooling *per se*, though forbidden by the Interstate Commerce Act. Pooling, amalgamation, consolidation, whatever approximates

to unity of working, is well so far for the railways and *probably* for the public. That *probably* depends upon how far they are controlled in the interest of the community, which only the Government can protect. Pools are spoken of as if they were a benevolent arrangement by which the public were sure to gain. Experience of a surer instinct has warned the American people to fear the effects of these friendly arrangements. Not unfrequently they were temporary, easily dissolved agreements, broken when one of the belligerents found it convenient, for Stock Exchange or other reasons, to withdraw from it. But if "the survival of the fittest" is the true doctrine, why should railway companies not be permitted to ruin themselves? Pooling is not made with a view of reducing rates to the public—mostly the reverse. But that does not matter, as if, according to the theory, transportation is made too dear, that railway will not be used; a cheaper one will take its place. More probably, however, the two will make terms, or if not, the victorious line will raise rates and compensate itself for past losses. Mr. Adams, who has discussed the American railway problem in a thoroughly exhaustive manner, points out the conditions by which "wild fluctuations" and "ruinous discriminations" can alone be made to cease. "The first step is to render the railroad system, throughout all its parts, amenable to some healthy control. The present competitive chaos must be reduced into something like obedience to law. Yet this apparently can only be effected when the system is changed into one orderly confederated whole." He suggests that a combination among all the railroad corporations might prove a first step to a better state of things. But it must differ from all previous confederations in three respects—"It must be legal; it must be public; it must be responsible."

To evade the Interstate Commerce Law forbidding

pooling, the Central Traffic Association arranged to divide the traffic among the lines it represents. If a road falls below the share of business it might fairly claim, the Association allows it a differential rate to adjust the inequality. President Depew, of the New York Central Railroad, says that the law against pooling must be amended or ignored. No wonder if, as he says, the companies between New York and Chicago have lost in ten months of 1892 15,000,000 dollars on 15,000,000 tons of freight carried. So much for competition, and the fact that the large wholesale houses have a discrimination of a third of the rate in their favour against the general public. The Interstate Commission is now collecting information from various sources, and inviting suggestions which will probably result in abolishing the law against pooling, and legalise contracts between competing roads, which may (?) be observed with the same good faith as former ones.

Whether any power less than that of the central Government could enforce these conditions, or could secure them without first buying up the railroads, seems doubtful. There is, however, in the American mind, a strong objection to the State undertaking the ownership of the railways. As matters are managed in the United States, if the railways were handed over to the politicians, it would be merely to substitute Government jobbery for railway company jobbery, and the first is more mischievous.[1] The members of a Government ought never to be at the same time directors of trading companies. It is not

[1] "A conclusive argument against the operation of railways by the State is that it would introduce into our politics a vast amount of patronage, which must largely become the spoil of the professional politicians. . . . At present, wherever railway management is closely connected with politics, it leads to bribery, manipulation, and betrayal of the public trust." ("The Railways and the Republic," by J. F. Hudson, p. 337.)

to the credit of some of the present English Ministry (1893) that its members hold among them many directorships. The State or the companies must be very badly served. Professor Hadley discusses the question of State ownership, and asks, "Will the State choose better representatives than a private corporation?" Yet he reluctantly admits that in Prussia, under Government administration, "the results are in some respects remarkably good." The direct administration by Government or by a private company do not exhaust the alternatives. There is a third which seems to be free from the danger of both—free from the risks of the ballot box and from the machinations of the railway "bosses." This is an intermediate body which should hold the various railway systems as trusts. There are "trusts" and "trusts," and America knows nothing of those we refer to. It knows only one kind, in which it is an expert, which are hated by public opinion and prosecuted by the law because established in the interests of their promoters at the public cost. The trust we contemplate would be a body chosen half by the Government and half by the owners of the railways. The latter would surrender their interests in return for an equivalent interest guaranteed by the State, for a deferred period with ultimate reversion to the State, as in India and in France. The railway trusts would be analogous to our dock and harbour trusts, a large co-operative society, administered solely in behalf of the public. There would be no rate wars, because these would not be subject to competition, but fixed at the lowest point needed to effect its objects. Surplus profits would go in reduction of charges.[1]

[1] The Dock and Harbour Trusts of Great Britain are much more numerous and of greater importance than most people are aware. There are about 270 harbours in Great Britain, of which nearly a third are under the control of municipal corporations. Apart from those docks which have been taken hold of by the railway companies in their own interests and contrary

August Schoomaker (for many years a member of the Interstate Commerce Commission) suggested that the making of rates should be entrusted to a federation of railway officials, the Government exercising a supervisory power. Excellent, if private ownership were eliminated, and the public interests were protected by the substitution of a trust (or trusts); otherwise the companies would still continue "to disregard the tariff mutually agreed upon, to secure the largest amount of business, by taking it from some other road." The rate sheets agreed upon afford no guarantee. The Interstate Commerce Commission, on one occasion, examining the rate sheets, compared them with the actual sums paid to the companies, and "finding that the published rate sheets were not adhered to, it made a decision reducing the nominal rates," and justified the act on the ground that the companies under severe competition fixed the rates themselves, and must take the consequences.

If the alternative of the substitution of co-operative trusts be rejected, and if competition is to run its course, as Mr. Adams seems to think, the mill of competition will have to keep grinding "until the survival of the fittest is finally ground out." Its advocates are prepared to continue a railroad system of which it is said—"Lawlessness and violence among themselves, the continual effort of each member to protect itself and to secure the advantage over others, have, as they usually do, bred a general spirit of distrust, bad faith, and cunning, until railroad officials have become hardly better than a race of horse-jockeys on a large scale."

to public policy, the "ports," says a writer in the *Manchester City News*, "which have made the most progress, which keep most closely abreast of advancing times—which enjoy the greater prosperity now, and have in view the more opulent bequest to posterity—are those which are managed by trusts or commissions on the co-operative principle." The Mersey, the Clyde, and the Tyne are the most successful instances.

Mr. Adams states that a Massachusetts Commission considered the subject of State ownership of American rails on the Belgian system, and rejected it as impracticable for political and financial reasons. He and other American writers are disposed to favour Government control like that of our Board of Trade. Confederation of the railways in their own interest, and State control of its action in protection of the public interest, is the favoured remedy: "Regulation of railway combinations, not prohibition." Such a system may serve as an intermediate stage, but it cannot be the final solution of the railway problem, and it may prove as difficult to introduce as even State ownership itself. Mr. Adams compares railroads with the supply of gas and water to cities, and points out that everywhere railroad competition is being abandoned, and responsible and regulated monopoly is asserting itself. But the cities *own* their gas and their waterworks, and do not, when they can help themselves, hand them over to private companies to manage and appropriate the profits, trusting to law to protect the public from injury.

Mr. J. F. Hudson rejects the supposition that any Board of Commissioners could confront "the organised and combined power of the railway corporations, with unlimited political influence, infinite resources of corruption, and secret methods for controlling appointments and legislation. This power has kept courts in its pay, it defies the principles of common law, and nullifies the constitutional provisions of a dozen States; it has many representatives in Congress, and unnumbered seats in the State Legislatures. No ordinary body of men can resist it. Here is the fatal weakness of laws establishing railway commissions, whether their other provisions be radical or mild."[1]

Rejecting State ownership on account of the abuses

[1] "The Railways and the Republic," p. 347.

of patronage, and the regulative control of the Interstate Commission because it would not be able to cope with these powerful interests, Mr. Hudson proposes to return to the methods of the railway system when in its infancy. The company is to merely own the track, and to take tolls from any one who likes to run his own vehicles and motive power. One train would be run by A, another by B, with unlimited competition between them, as on the ordinary highways and canals. The train despatcher "would notify by telegraph to what points each train had to go, where they are to pass other trains, and where they are to wait for other trains to pass them." He thinks that the obedience of the men in charge of the trains, and their intelligence and care, can be secured if competing carriers are allowed to use the same track; that a safe rolling-stock can be maintained in good repair by frequent inspections, and that outside carriers shall have the right to load their trains at whatever rates they choose, and to send them over the tracks of the railway under the regulations necessary for speed and safety. It shows an abounding faith in competition to ask that the present organisation of the United States railways shall revert to the earlier, primitive, and long since abandoned methods, in order to cure the evils attaching to private ownership. The freighter has now only one body to deal with—the railway company; Mr. Hudson's proposal would give him two, the owners of the track, and the owners of the rolling-stock, and how much the better would he be?

If trusts were substituted for the consolidated systems that have parcelled America out amongst them, not only would rate wars cease, but the preferential treatment of this or that person or place would go too, the charging less for the "long haul" than the "short haul," and the sacrifice of cheap water transit in the interest of its railway competitor. With these

would disappear a whole army of soliciting agents touting for their own lines, besides a vast number of clerks who have to adjust the charges for freights between the various bodies concerned in the complicated system before the commodity reaches its destination.

Without the consolidations that have taken place, the position of many of the companies would have been worse than it is. They have counteracted the more extreme effects of competition. They would facilitate the transfer to systems of trusts, worked on behalf of the general advantage. Many of the railways do not own their cars, and much delay and loss is incurred by the present arrangement of payment of car service. Already it has been "suggested that it would be a great step in advance to have all the roads unite, put all cars into a common stock, and let them be distributed, record kept of movements, and mileage paid through a general clearing house. This would practically form a single rolling stock company owned by the roads contributing their cars to it. It could gradually introduce uniform patterns of construction, improved couplers, and air brakes, and could concentrate cars in different sections of the country in large numbers as different crops required movement, thus avoiding the blockades which often occur in one section while cars are superabundant in another."[1]

Though Mr. Kirkman believes in the blessings of competition, of letting railroad companies have their freedom, that though they can injure each other, they cannot injure the public, that the wisest thing Governments can do is to let them alone, he admits the possibility of a consolidation of them. "What the effect of the general consolidation of railroad interests would be, no one can tell. It is not probable that the interests of the people would be menaced thereby.

[1] General E. P. Alexander, "Railways of America," p. 172.

* * * Should the railroads of a country be consolidated, it should be attended with carefully systematised methods of administration, impersonal in their nature, and not dependent upon men or parties." While he says that "nothing should be allowed to come between the (railroad) owner and the public," yet the same authority says, that Government ought to exercise "such reasonable and proper supervision of their affairs as may be necessary to satisfy the public of their equitable working, or that may be necessary to secure the just accountability of owners and managers; that will secure due and equitable capitalisation, and economical and faithful management. * * * Supervision of this kind comes within the natural and legitimate province of Governments."[1] If the Government consisted of angels it would not be able to perform the task here assigned it, in the face of the strong personal interests of the owners. Government could only perform it on the condition that the management was a public function, with only one duty, that of organising the railways in the interest of the public and no one else. If all lines were public property, worked only in the public interest, all these jangles about "what the traffic will bear," discriminations of rates, differences even of cost, would become matters of secondary, and justice and simplicity would be of primary, importance.

That a people so intelligent and quick-witted as the Americans should tolerate such abuses so long is matter for wonderment, but that we see the same toleration of admitted evils in this country. The enormous capital and closely bound interests of the railway magnates mastered the public. The fly vainly struggling in the spider's web finds it too strong to be broken and yields to its fate. So the American people, in the hands of the railway

[1] "Railway Rates and Government Control," p. 181.

corporations, realise in a much fuller sense than we do the prediction of Captain Tyler in 1872, that "if the State does not manage the railways, the railways will soon manage the State." The Supreme Court by its decisions secured some control in the public interests, but under the American Constitution Congress had no power to interfere with the rights of the separate States or authorise the construction and control of railways within the State limits. The Committee of the Senate which drafted the Interstate Commerce Law "recognised the importance of preventing in the future the building of unnecessary railroads for purposes of speculation, stock-watering, fictitious capitalisation, and similar operations by railway speculators and wreckers, which have resulted in imposing a continuous and serious illegitimate burden upon the commerce and people of the country."[1] But State rights forbad Congress to interfere with this. All that could be done was to pass the Interstate Commerce Law, the object of which was to secure equitable facilities of traffic and to prohibit pooling, and thus encourage competition. It was to secure the public against unfair discriminations, principally by prohibiting a greater charge for the shorter distance than for the longer one "except under special circumstances;" but, as Mr. Hudson says, "if the railway theories obtain, there never was a rate that in their view was unreasonable, nor was there ever a discrimination that was not justified by some differences in the conditions." A Commission was appointed to carry out the law and interpret it. They copied its fourth and most essential clause from the second clause of our Railway and Canal Traffic Act, and with equal non-success. They prohibited charging more for a short than a long distance, but weakened it by the above words

[1] Senator Cullom.

of qualification, which left a door open to its evasion, practically to its suspension, soon after it was enacted. Indeed, Mr. Morgan, like certain railway advocates here, contends that to charge more for short than for long distances was in the interest of the public, that the railroads sacrificed their own interests to benefit their customers. "To charge by distance alone," he says, "would save the companies from fifty to sixty per cent. of the cost of their book-keeping and auditing departments, and enable them to dispense with others (such as the freight contracting departments) altogether."[1] This is, indeed, an argument for the proposed trusts.

Congress, however, wearied of the abuses of the railway system, passed this most inadequate measure, and attached much importance to it. But their experience, like our own, showed that such legislation is destined to ultimate failure. Indeed, it may be said to have already become so. The railway managers ignore it, and systematically evade its provisions. Violations, which are easily concealed, excite no surprise when discovered. Given a body of railway owners who have a strong personal interest in breaking the law, and it would surpass the wit of man to frame laws to defeat them. Perhaps at no distant day, when other expedients have failed, the ownership of railways by the State will be recognised as the true remedy. The principal advocate of the law in the Senate (the Hon. S. M. Cullom) said[2]—"The danger, in my judgment, is that even with the Commission, after a little time the railroads will drop back into their old habits of unjust discrimination, of paying rebates and practising favouritism, etc.;" and then he continues—"they are from the very nature of things monopolies, and are performing a public trust, and it is the duty of the State and nation to see that

[1] "The People and the Railways," Morgan, p. 110.
[2] June 29th, 1887.

as monopolies they do not abuse the privileges granted to them." But that is the very thing the State cannot do, except on the one condition of ownership. This the Commission soon found out. "It has not done away with discriminations, rate wars, and violent fluctuations." To regulate the rates over thousands of miles of railroads, every district having its traders and railway companies with conflicting claims, is simply impossible. We know what the task was when our own Board of Trade undertook to settle the rates of the London and North-Western Railway, intended to be the type of the rest of our railways. What a Commission with much less power than our Board of Trade, with nine times the mileage and a considerably greater variety of conditions in the States than here, could accomplish, may be imagined. Even while the first report of the Interstate Commission was being issued, one of the great railway wars took place in the west. "The companies engaged were daily losing millions, until several of the roads involved ceased to solicit freights, to do no business at all being considerably cheaper than to move their trains for unprofitable transportation."[1] But the Commission could not, under the conditions of the case, offer any remedy, and after the battle, when the exhausted combatants could no longer fight, the belligerents made peace without "State interference," and thus private interests took care of themselves, which some hold to be the proper thing. But the railway companies themselves are not so satisfied with this state of things, and recently the idea of immense railway combinations has found favour. Ex-Governor Anthony (Kansas) proposed "a vast pool of all railroads, with the control of that pool in the hands of the Government"—not a great remove from the proposal we make. Mr. C. P.

[1] "The People and the Railways," Morgan, p. 135.

Huntingdon (a great railway owner) has recommended the concentration of the whole American lines in one single system, which would, as in France, abolish the ruinous competition, would leave, as it does there, an adequate return for capital, but would only work, as there, under rigorous State control. In such a case a railway would not be permitted to be "as much a judge of the conditions under which it can afford to do business as the grocer or the butcher who watches the market and sells his molasses or his beeves at one rate by retail and at another by wholesale."

A power so capable of abuse ought not to be in the hands of a few corporations, nor the general public interest subordinate to private gain. Even Mr. M. M. Kirkman, one of the strongest opponents of State interference with railways, lays it down that its interposition is necessary to prevent the creation of needless competing railways; he holds that "in order to obtain the highest possible results, both from the standpoint of the community and the carrier, railways should be wisely located. "Only such lines should be built as afford reasonable proof of profitable employment." Such conditions are obviously impossible when the origination of railways is left to any number of promoters acting without general concert, without other direction than that of "each striving to get his head uppermost." *Direct* State management may be neither practicable nor desirable, but may be *indirectly* through an authority specially created for the purpose. Certainly not such an authority as the Board of Trade in England, or the Interstate Commerce Commission in the United States, either of which, as Mr. Kirkman remarks, "are only equal in number to the practical men that every railroad finds it necessary to employ for its own use." All the talk about officialism, its lack of energy, its slowness, is utterly inapplicable to a body specially created to manage railways and

nothing else, and including in its personnel the existing staffs of the railways, but neither under the control of shareholders, who should be compensated, nor of caucuses.

The Farmers' Alliance, the members of which have suffered greatly from the "combines" and monopolies so prevalent in the States, have made the following one of their "planks":—"We demand that the means of communication and transportation shall be owned by and operated in the interest of the people, as is the United States postal system."

The Interstate Commerce Commission has so far been able to exercise very little control over the American lines, and is now said to be "a thing of the past except in name." It seems rather a body for collecting statistics of the railways than to possess any power to check their aberrations. It reports that "the increase in railway capital for the year (to 30th June, 1890) is 538,079,233 dollars, of which at least 250,000,000 dollars is due to the increase of capitalisation on lines already in existence," and states that "whether or not this represents the true increase in value of railway property is a pertinent question." Very pertinent indeed, we should say!

The report puts it as a hypothetical question, "whether the rate charged to the public should be increased so as to secure the payment for all outstanding capital (!), or whether the capital should be reduced to meet the actual payments from the public for service"; in other words, whether the public should be asked to make good to the railways the more than one-half of the capital the promoters have wasted. One of the difficulties urged against State ownership, has been the question, "What will you do with the watered stock?" Stock that is earning income presents little difficulty. It would be replaced by equal value in Government guaranteed bonds. Other stock might be valued by arbitrators jointly chosen

by the stock owners and the State, and should be fairly compensated. The American who resents the dictation of railway corporations, would accept arrangements made in his interest, and make the railway, instead of the instrument of a few speculating "bosses," his servant, with no deduction beyond payment for capital and labour.

The Commission finds itself hampered to get all the statistics needed, though it has done much useful work. Neither the Pullman nor the Wagner Palace Car Companies are required to make reports to the Commission. Then the Express Companies, which pay the railways about one million sterling annually, make no returns. The water traffic (the Great Lakes and the Atlantic Seaboard), intimately connected with the railway traffic, make no returns. The report complains that the corporations which supply rolling stock to the railways are not included. But the most curious fact is that there is "no record in many instances of the original cost of a line." And now, when most of the new construction is undertaken by Construction Companies, the accounts of the railway companies show only the valuation of the road when turned over to the Company. "There is," say the Commission, "in this fact the opportunity for grave abuses, for *there is no means by which false capitalisation may be avoided.*"

Commenting on the low rates of dividends, the Commissioners remark "that the motive for ownership in railway stock is quite different from the ordinary motives which lead men to invest in corporate enterprises, thus presenting an additional proof that railways are a business not subject to ordinary business rules." They are different, but the motives are not very recondite. Much of the capital is held in foreign countries, and the distant holders have too late found out the reduced value of their investments, and that they are powerless to control

the managers. It is also found that lines that never have paid, and never will pay, a dollar of dividend are as good counters to gamble with as the best.

How has this scramble for wealth—this "competition," this "commercial enterprise" which, under fine names, masks the struggle of individual rapacity—affected the vast body of railway employés, said to number, directly and indirectly, nearly 1,000,000 men? We know what it has done for the majority of the share and stock holders, and we know, too, what it has done for the nation; how, as Mr. Sherman says, "it has wasted our forests, prematurely exhausted our land, built countless unnecessary railroads, prevented the growth of new industries, covered our western prairies with bankrupt farmers, and built up gigantic private interests which threaten our political stability." But what has it done for those who follow this most laborious and dangerous of employments, subjected to the rigours of the climate in all weathers, to long hours by day and by night, to moments of anxious care, when a slight mistake might destroy scores of lives? Has it identified the interests and well-being of the men with that of their employers? Apparently not, or we should not have witnessed the recent contests in which large quantities of perishable goods were left in the trains, and their proper guardians burning and wrecking them, while a small army of soldiers had to be employed to quell the riots. We express no opinion as to the merits of the dispute, but that must be a very imperfect organisation which does not deprive the employé of any reasonable excuse for such atrocious acts. Nothing shows so clearly the distinction between the railway and ordinary industrial undertakings, even those on the largest scale. The latter may discharge their men, or the men may discharge themselves—it will not greatly affect the public. But if railway employés quarrel with the

company that employs them, they may, by simply refusing to work, paralyse the intercourse and traffic of large districts, and inflict incalculable loss on the country. Yet no considerable effort has been made in the United States to make the employés feel that they have a *permanent* interest in the prosperity of the railroad which they operate, and the same is the case elsewhere.

Nor does the American system set a very satisfactory example in precautions to protect the lives and limbs of the employés. The report of the Interstate Commission (to June 30th, 1891) gives 2,660 employés killed, and 26,140 injured, most of which might have been avoided by the universal use of train-brakes and automatic couplers.[1] It seems more like the record of a battle than of a peaceful industry.

An authority connected with one of the transportation companies, commenting upon this remark, says :—

"The American public demands and receives cheap service in transportation as in every other direction. Cheap transportation service is rendered on the basis of quick construction of inexpensive highways, the trying every new invention that promises success and economy, and the experimenting in every possible way. All of this kind of work is done at a great risk to life and capital. But the American people never stop for this ; they push on towards the goal that they desire to reach regardless of the lives that are sacrificed during their progress. We are not as careful of life in this country as they are abroad, and perhaps this difference is a necessary incident of our newer life and the larger work that we have to do within a given time. Many of the lives that are lost on our carrying lines are the direct

[1] Of 913,580 freight cars, only 78,475 are fitted with train brakes. Automatic couplers for freight service are only used in 104 locomotives out of 16,140, and 75,485 cars out of 913,580. (Report of Interstate Commerce Commission, to June 30th, 1890, p. 34.) A public Act has been recently passed compelling (after 1st January, 1898) locomotives and cars to be equipped with automatic couplers and continuous brakes.

result of reckless bravado on the part of the men themselves. Employés desire to show their ability to couple and uncouple, or board or get off trains in rapid motion when there is no call for their doing any such thing. The result is that life is needlessly sacrificed, and no machinery or rules will wholly prevent people residing in this country, with its surroundings and climate, from taking foolish risks."

Mr. Kirkman treats railway accidents as inevitable. "Efforts to make them absolutely safe are purely sentimental, as senseless as an effort to make our street traffic absolutely safe. *It is too costly.*" We decline to believe that indifference to human life is a necessary element of human progress. Until every precaution has been adopted that experience has shown to be useful, an accident is a crime, and when the inevitable calamity does occur, not a shilling of dividend should be distributed until those who have suffered in life or limb to earn it have been provided for by a system of insurance.

In the case of the mail service of the United States, the State very considerately provides, for the use of the employés who travel in the part of the trains most exposed to danger, "saws, axes, hammers, and crowbars" in case of wreck, and "safety bars" overhead to which they may cling in case of the cars rolling down embankments. But, like their railways, the State makes no provision for them if injured, or for those dependent upon them if killed. When the time comes for allotting the spoils to the victors, the postal officials may, after learning their business, be supplanted by others who know nothing about it. If railway management were thus dealt with as a consequence of State ownership, its last state would be worse than its first.

On the 20th July, 1892, ex-President, now President, Cleveland, speaking on the American protective tariff, said: "We insist that no plan of tariff legislation shall be tolerated which has for its object and purpose a forced contribution from the earnings and incomes of

the masses of our citizens to swell directly the accumulations of a favoured few, nor will we permit pretended solicitude for American labour, or any other specious pretext of benevolent care for others, to blind the eyes of the people to the selfish schemes of those who seek through the aid of unequal tariff laws to gain unearned and unreasonable advantages at the expense of their fellows." In a rational society a Jay Gould should be impossible · "the controller of one-tenth of the railway mileage of the United States, one-twentieth of the mileage of the world, and of 180,000 miles of telegraph wires"—not for the public welfare, but as instruments to extract boundless wealth to add to his hoards.

No doubt if America had taken the construction and control of its railways in hand from the first, placed them on a system avoiding competing lines, and constructing them as fast as the exigencies of population demanded, the vast sums she has expended in making them would surely have shown better results than those she has experienced. The conditions here have been difficult enough, but the problem in this small island, and with a stronger and more centralised Government, is simplicity itself, compared with that of the United States—a country of magnificent distances and a railway mileage nine times greater than our own, with forty-four States, some big enough for an empire, and each possessing large independent powers, with a weak central power which does not willingly come in conflict with them, and complicated further by its relations with its Canadian neighbours, who also have traffic interests. Yet it is more than probable that the United States will put their great highways on a satisfactory basis before this country, where privilege and "interests" of all kinds so powerfully resist every reform. That great country has already solved tough problems, and this one will have its turn.

CHAPTER III.

ENGLISH EXPERIENCE.

"The effect of monopoly is to give the power of levying any amount of taxation on the public for individual benefit, which will not make the public forego the use of the commodity."—J. S. MILL.

THE English railway system has never been subject to such gross abuses as that of America. This is partly due to that so much despised State interference, which the Americans rejected. Not a few of these now regard such interference as the only mode of rescuing them from the excesses of unrestricted competition. We, however, have had our share. That they have not been more mischievous is due in part to Government control, and in part to the independence of our judges. The English system resembles the American in permitting the predominance of private over public interests. They often conflict, but the public would have fared far worse than they have done but for the action of the State, weak as it has been and still is.[1] The history of English railway legislation is one long struggle to rectify the error made in giving private companies such extensive powers. Over twenty years ago, it was said as a result of the previous forty years' experience that English railway legislation has neither

[1] The numerous committees that have sat upon the Companies furnish an indication of the public discontent. There were Parliamentary Committees in 1844, 1846, 1853, a Royal Commission in 1865, a Joint Committee in 1871-72, a Committee in 1881 and 1882, and a Joint Committee in 1890 and 1891.

accomplished anything which it sought to bring about, nor prevented anything it sought to hinder.

Its initial mistake with the railways was in disregarding their systematic distribution with reference to the whole country. The only power that could have attempted this was, as in France, the State; but all through, from the beginning, the State has abrogated this function. Left to themselves, promoters selected the districts likely to pay best, and hence there are duplicate and triplicate lines between the same places, while less promising districts were neglected. Accident has determined what railways we should have and where they should be. It was not so much its merits that called a line into existence as the vigour of its promoters, and its fate has been dependent on the length of their purses, the more or less persuasive tongues of advocates, for and against, and the chances of who was on the committee that considered it. How difficult it must be for a committee to decide such questions is illustrated in a recent case mentioned by Mr. Acworth, where a new railway was projected, and while its promotors calculated upon a revenue of over £100 per week, a high railway authority on the opposite side said £20 per week was an outside estimate.[1]

This happy-go-lucky system has had its continuous opportunity. The history of the railway mania of 1844 and 1845 is a melancholy exhibition of human greed. Those years gave a direction to our railways from which they have suffered to this hour. In 1844 248 schemes were lodged with the Board of Trade; in 1845, 815! Previously railways were promoted because there was some reason to believe they were wanted. The schemes of 1844 and 1845 were mostly planned simply as speculations, not by men who meant to make the railways, but to sell their

[1] *Nineteenth Century*, December, 1892.

legal power to do so. Hundreds of the schemes never survived the reaction which ruined thousands of credulous people. In 1850 Parliament permitted the speculating promoters to drop their schemes, but they did not wait for Parliament, and proposals involving forty millions of capital and 2,000 miles of railroad were abandoned without its consent. Many of those which were completed have been far from contributing to the prosperity of the railway system.

As if the speculators were not enough to injure the railway system, there was also the opposition of landlords. Some, honestly prejudiced against railways, resisted them to the extent of preventing surveys by physical force. Others had to be bought off, and being all-powerful in a legislature of landlords, exacted compensation said to average two or three times the real value of the land required. Add to these the Parliamentary expenses of engineers, agents, and counsel, estimated at £70,000,000, and which a return quoted by Mr. S. Laing showed to be upwards of £5,000,000 even in the ten years preceding 1886, and which he says "is money wasted which might have given the means of carrying out important improvements."[1] These excessive compensations and costs were incurred before a spadeful of earth was moved, or a rail laid, yet have to be taken into account for dividend. Not a ton of goods or a passenger is carried that does not pay a share of the needless expenditure.

The consequence of handing over the great traffic interests of the country to a number of powerful irresponsible bodies was foreseen. Their great power is not a new item of social history. Mr. Hunter, M.P., quotes two remarkable passages from reports

[1] "Our Railway System," by S. Laing, Chairman of the Brighton Railway, *Fortnightly Review*, April, 1886.

of committees of the House of Commons. One as old as 1838 said, "The companies have it in their power practically to prevent the due transmission of the correspondence of the country by means of the Post Office, as well as to impose upon the public whatever terms they think fit for its conveyance."

Another report (1838) referred to "the difficulties that must arise from an extended intercommunication throughout the country solely maintained by companies acting for their private interests, unchecked by competition and uncontrolled by authority." Yet thirty-four more years of this process were permitted to pass, and the railway companies are thus described in the joint report of 1872 :—

"They are practically under no restriction except that of their own interests, which may or may not be the same as that of the public ; they claim and exercise the right to vary their charges to any extent they please within the Parliamentary maximum ; to favour one place, or one description of trade, at the expense of another ; to charge high rates for short distances and low rates for long distances ; or to charge two different rates for the same service, if they think it their interest to do so ; and not only do they claim to exercise all these powers, but they refuse to tell the public how they exercise them or why they exercise them."

The Report of 1872, admits that nothing was done "which had any effect in checking or regulating monopoly." The same report, quoting that of 1844, affirmed "that rates and fares were too high ; that competition would do more injury to the railway companies than good to the public ; that the effect of monopoly, both on the public directly, and indirectly on the railway companies, was to be dreaded and guarded against." One wonders whose interests, except their own, private companies were expected to look after, still more how it could be conceived that competition could operate in a matter where competition was hardly possible, or how public authority could control such large individual interests. If a company for any ordinary undertaking makes a

mistake, misapplies or loses its capital, the shareholders lose their money, it winds up, and the public have done with it. But a mistake in the creation, or the privation of the means of transit, of the public highway in fact, is a matter not easy to remedy, injures more or less the whole community, and cannot safely be left to uncontrolled private speculation. Over fifty years have passed since some of these reports were published, and we see now that neither competition nor legislation can settle the railway problem. About the time of these utterances a little Continental State, under the guidance of a wise king, was solving the railway problem in its own way, not by competition nor by State control, but by State ownership. In 1833 King Leopold began the construction of the main lines in Belgium, and the experience of over half a century has shown the wisdom of his action.

When Mr. Gladstone, in 1844, made his proposal conferring power to buy the railways, the companies were a manageable body, though even then every provision of the original Bill that was supposed to make against the companies *was struck out.* They have now become powerful enough to successfully resist serious interference. Though the powers of the Board of Trade have been considerably increased, it is no match for the railway companies, and it knows it. Its president, though sometimes in the Cabinet, is not so invariably. The companies command over fifty votes in the "people's" House. On a purely railway question, it is doubtful if the traders count any. The Minister naturally looks at this, and if it becomes his duty to call in question railway management, he does it as a tender mother does her wayward children. With a considerable body of railway directors and of large shareholders in both Houses of Parliament, they have become a "State within the State." The same persons legislate in opposing fiduciary capacities, as railway directors for themselves,

and as members of Parliament for the public. The nearest parallel to this is the landlords legislating upon allotments, tithes, game, and land laws generally.[1] When a new competitor entered the field it had to sustain a costly fight with its neighbours. If it fought itself into existence, it found that a war of rates meant ruin, and it made terms with its opponents, verifying Stephenson's remark, that where combination is possible competition is impossible. When there are more lines than one between the same places "they divide the monopoly but they do not compete." The Joint Committee (1872) said: "There is little real competition between railway companies, and that little is disappearing by degrees without any possibility of maintaining it." There is, however, still much injurious competition between railways which injures shareholders but does not benefit the public. Railways amalgamated, though the sanction to new lines by Parliament was often given on the supposition that the public would gain by a new competitor. Wisely, where they could compete, they do not, but agree as to charges, facilities, etc., and all that the public gets thereby is to pay profits on two capitals instead of one.[2] Amalgamation, while it has enabled the companies to introduce

[1] It is said of one Committee appointed to consider railway surcharges, that out of nine members of Parliament seven were railway directors connected with thirty-five different railway companies. In the case of the Royal Commission on Railway Hours of Labour there were on it seven railway directors and only two labour members, but the decisions were fairer than might have been expected.

[2] In Leeds a second gas company was established to lower the high charges of the first. Result: Same dividend paid on two capitals. The Corporation had to buy up both. Sir R. Moon told a deputation from South Staffordshire, "When the London and North-Western was the only railway to Liverpool, we carried your iron at 25 per cent. less; now you have three railways, and must pay for them!"

unity of management and lessened waste, has also enabled them to keep up rates and fares against the public more effectually. The Committee (1872) said, "The predominant idea in the mind of the public has been that competition, which is so powerful a regulator in most commercial affairs, would also suffice to regulate railways; whilst, nevertheless, by a slow and gradual process of experiment, one form of competition after another has been proved to be inadequate." Mr. Laing said, "Every pound wasted in Parliamentary contests and excessive compensation for land comes ultimately out of the pockets of the travelling public," also that "not only is competition no effectual protection for the public, but, on the contrary, it will be found in practice to be about the greatest misfortune that could befall them."[1] Mr. Grierson said competition is utterly impossible. In fact to vigorously compete would be simply ruin, as it has often been on the American lines, which sometimes patch up their quarrels by amalgamation or pooling, and then strive to make the public compensate for past losses. Far from favouring competition in the interest of the public, they kill it where they can, and if they were unable to keep up rates by agreement, they would ruin each other by underselling, and in the long run the public would be worse off.

The policy of the State in relation to water carriage has been equally at variance with public interests. At the International Congress on Inland Navigation in Paris (1892), our own representative, Sir Courtenay Boyle, K.C.B., stated that the result of leaving the means of (canal) transport to private enterprise, with non-interference by the State, had been to cause such a diversity of gauge, depth, and

[1] "Our Railway System," by S. Laing (*Fortnightly Review*, April, 1886.)

other conditions, that through transport of merchandise from one part of the kingdom to another was often a matter of the greatest difficulty, and entailed so much transhipment as to greatly increase expense. Other speakers cited the English system as "*one to be avoided at all costs.*" In the report of the Select Committee on Canals (July 12th, 1883), it was stated by numerous witnesses that the locks and waterways are altogether wanting in uniformity, and that one of the greatest difficulties of canal traffic, in England and Wales especially, has been that scarcely two canals have a common gauge. It was formerly much the same in France, but the French Government fixed a uniform minimum gauge, to which alterations have to conform. France has spent over sixty millions sterling during the century to improve her canals and make them toll-free.[1] All improvements are made

[1] A recent report from the British Consul at Rouen contains some interesting observations on the French inland waterways. He remarks that "the fierce competition of modern commerce has forced producers and distributors alike to replace, wherever possible, the carriage of the heavier form of goods by rail with cheaper water-carriage. Bulky and heavy articles, such as coal, timber, grain, petroleum, wine, metals in pig and plate, and raw materials of all kinds, must now choose the cheapest form of carriage into and through a country, and that is by water; and it is of such articles that the chief imports of Rouen consist." France is, he adds, greatly in advance of England in the movement for developing inland navigation, and possesses a far more perfect system of canals and rivers made navigable through deepened and trained channels and locks, by means of which uniform depths are secured to navigation over great distances. Her whole system of inland waterways has always been kept in the hands of the State. Railways have never been permitted, as in England, to purchase and throw out of use or otherwise to break down competing canals. Indeed, except during one period—the Second Empire, when railways were being constructed all over the country and canals were thought by some out of date—the inland waterways of France have always especially occupied the attention of the Government. The perfecting of this vast network of canals and rivers made navigable—"rivières canalisées"—has, however, been the work

at its cost. Traffic goes over long distances (250 to 350 miles). Mr. E. J. Lloyd,[1] a witness before the Committee on Canals, strongly approved of our Government purchasing the canals in order to obtain similar advantages. Belgium, where the State owns seven-eighths of the canals, attaches so much importance to them as cheap carriers, that she encourages them at the expense of her own railways. As Mr. Conder told the Committee on Canals (Question 2,395), in Belgium, France, and America, it is not a question of canals or railways, but how can the public have the cheapest transport; and as you can do for one-third by water what you can do by railway, you shall have every facility to do it.[2]

The late Sir James Allport gave evidence before

of the present Republic, which has spent £40,000,000 in facilitating, by these means, the transport of heavy goods throughout the interior of the country. Thus it has come about that France possesses a comparatively perfect system of inland waterways, the total length of which now reaches 7,456 miles. These waterways are not like the canals of England, for the use of which payment is always required, so that dividends may be paid to shareholders. They are as free to the use of all as the roads of the country, the last vestige of canal dues having been swept away in 1880, when the "Droits de Navigation" upon canals were abolished. (Consul O'Neill's Report, No. 241, 1892.)

[1] Report on Canals, 1883, E. J. Lloyd (Questions 647 to 659).

[2] Comparative cost of a traffic of 600,000 tons net per annum, allowing 4½ per cent. interest on capital :

		Working Expenses. *d.*	Cost Per Ton Per Mile. *d.*
England	Railways	0·53	1·31
	Canals	0·26	0·37
France	Railways	0·42	0·86
	Canals	0·23	0·33
Belgium	Railways	0·49	0·94
	Canals	0·20	0·20
United States	Railways	0·27	0·02
	Canals	0·10	0·10

(Canals Report, 1883, Appendix, p. 233.)

the Canal Committee. Holding a brief for the railways, he had to get over the Continental example as best he could. "There," says he, "the State controls these matters, not only controls the construction of railways, but controls the rates; they will not allow competition. It is a monopoly." In other words, their ways are not as our ways. At the recent Brussels Congress on Canals, Mr. E. Clements, one of the English representatives, was struck by

"the unanimity with which the inland waterways are regarded by the respective countries as factors in the general prosperity of the nation. Whether the form of government be republican, monarchical, or autocratic, this fact is recognised, and in most instances all the natural waterways, and the greater part of those which are partly or wholly artificial, are the property of and administered by the State. This is the fundamental point of difference in the administration of British and foreign navigations. In general, it may be said that the Continental waterways may be regarded as highways." It cannot well be denied that the foreign point of view, as regards natural waterways, at all events, is correct. There is every reason to believe that until British canals are regarded from a similar standpoint they will, speaking of them as a whole, remain in their present unsatisfactory condition.

If competition cannot serve us as well as state ownership, competition will have to go. Where was competition when the Government permitted the railway companies to get a controlling power over the canals? As the Select Committee (1872) said of river and canal competition with railways: "It is difficult to make a company maintain an effectual competition with itself." It was a great legislative mistake to permit the railway companies to gain the ownership or virtual control of water carriage, while having a "*direct interest in the destruction of its efficiency.*" Like much of our legislation, it was all haphazard. As stated before the Canals Select Committee by Sir H. G. Calcraft, "most of the control by the railways of the canals was in 1846, not as the deliberate policy of Parliament, but from the exigencies of the moment." In fact,

the public and Parliament did not attach sufficient importance to the question. The canal owners thought they had a declining property, the railway companies thought they would be better without competitors, and so the mischief was done. But in 1872 the Joint Committee saw the mistake, and passed recommendations—to lock the stable after the horse was stolen. As Mr. Conder said, "the railway companies have been enabled, in some cases by means of very questionable legality, to obtain command of 1,717 miles of canals, so adroitly selected as to strangle the whole of the inland water traffic, which has thus been forced upon the railways to the great interruption of their legitimate and lucrative trade."

The elements of cost are less in the traffic for which canals are adapted, provided they were improved as they might be, than in any other mode of conveyance. To begin with, the canals cost £6,560 per mile, and railways £45,536 per mile on an average, though now constructed more cheaply. Canals can be maintained for an equal amount of traffic at less than one-fourth of the outlay on railways, and the cost of carriage of heavy material is less than one-third of that of the railway. They have no wear and tear of rails, sleepers, and fittings, or replacement and maintenance of permanent way, a heavy item in the working expenditure of the railways of the United Kingdom, and an estimated equal amount in the repairs of vehicles and locomotives, due to the damage caused by the reaction of the rigid way.[1] On the other hand, the evidence went to show that the maintenance of canals properly constructed was

[1] Report (Select Committee on Canals), 1883, p. 235. Appendix, No. II. F. R. Conder, C.E., S.S. Watson, Question 1776. It is called a Report, but no Report was made. The Committee took a large amount of evidence, and asked to be reappointed in the following session, but this was not done—a result much to be regretted.

exceedingly slight. Completely organised and owned by the State, free from other control, they could carry all the heavy slow carriage of the country at a great economy on working expenditure. The net profit on the independent canals was £227 per mile, that on those owned by the railways £111. What avail these economic advantages if the canals are in the grip of the railway companies? If both railways and canals were in public hands, there would be every inducement to encourage this form of traffic; but railways as private monopolies cannot tolerate invasions of their territory. Where they had not ownership they obtained it by agreements, such for instance as to carry for a penny in the shilling less than the railways,[1] and thus the economy of the canal is lost to the public. It was given in evidence before the Joint Committee (1872) that it was worth the while of a railway company to pay a large subsidy to a canal in order that it might charge a rate that would drive the traffic to the railway.[2]

[1] When the Leeds and Liverpool Canal joined the Railway (Normanton) Conference in 1876, its rate was increased 5d. per ton because the Conference thought that the difference between rail and canal was more than was desirable. While this canal was leased to three railways, its charge per ton was 16s. from Liverpool to Leeds, the railway rate being 15s., while the canal toll upon coal, which was under the control of the Canal Company, was ¼d. per ton per mile. But when the lease expired in 1874, the Canal Company was able to reduce the charge from 16s. to 8s. per ton, and yet able to pay about 15 per cent. dividend, after paying a large sum in improving the canal. (Questions 827 and 2,369.) As matters are now managed, canal owners profit by arrangements with the railway companies, and the public lose the advantage of the cheaper transit, which is measured not by what the canal company could well afford to charge, but by the railway rates. In the instance of the excellent navigation of the Aire and Calder, the charges are governed by the rates of the North Eastern and Lancashire and Yorkshire railways.

[2] Mr. Edwin Clements quotes two remarkable agreements between the Witham Navigation and the Great Northern

In some cases the railways have got control of the whole water communication of a district, sometimes by agreement, sometimes by Act of Parliament, in one case illegally and secretly by buying the navigation in the names of their officials. In future the railways cannot acquire any interest in canals without statutory authority, but such Acts can be easily evaded.[1]

These means do not exhaust their skill in impeding water carriage. If prohibitory rates do not suffice, repairs may be neglected, the supply of water be omitted; it may be stopped at inconvenient times under various pretexts.

The Joint Committee deprecated the absorption of the canals. They said: "There is some competition between railways and canals, and it is desirable to make every effort to keep up and develop the system of inland water navigation, although it is improbable that that system can maintain a general or powerful competition with railways."[2]

Railway, by which the latter agree to pay the former £10,545 per annum for the privilege of *losing* £755 per annum; and the same railway company agree to pay for the Channel of Fossdyke the sum of £9,570 per annum for the income of £689. These agreements were for 999 and 894 years respectively. (*Chamber of Commerce Journal*, October 10th, 1892.) Every £150 share in the river Don navigation cost the railways £3,000. Of the 160 miles of canal from South Staffordshire to London, twelve miles is comprised in the Birmingham canal: the tolls on this short link were 33 per cent., leaving 67 per cent. for the rest of the distance.

The absorption of the canals was disastrous to the trade of South Staffordshire.

[1] The Report on Canals of 1883 gives the following distribution of them:

	Miles.
Public Trusts	927
Independent Canals	1,445
Canals Owned or Controlled by Railways	1,436
Converted into Railways	120
Derelict	188
Ownership not known	36

[2] "Report," 1872, p. lxxx.

Few such efforts have been made, but many in the opposite direction. The Act of 1888 gives the trader the same power of appeal as in the case of the railways, but it is often a barren privilege. Its value to the traders has again been tested. The Board of Trade has undertaken the same task it has been working at with the railways, viz., to re-adjust maximum tolls, rates, and charges. The canal owners lodged their proposed schedules of tolls. These bettered the instruction of the companies, in asking enough. Mr. E. Clements (Secretary of the Mansion House Association on Railway and Canal Traffic) examined 57 schedules relating to 84 different navigations (some owned by railways and some by other companies), and found that, apart from various other objectionable proposals, many of them proposed tolls which were considerably higher than the maximum railway rates authorised by Parliament in Sessions 1891 and 1892. It is said that these extravagant and unexpected demands have been made to raise them in view of the possible purchase of the canals by the State. Even the Manchester Ship Canal, which originated in the desire to have cheaper rates than the railways, has actually submitted proposals for maximum rates, tolls, and charges, higher in some instances than the London and North-Western Railway. The irony of our system could not have a better illustration.

The Report of 1872 favoured the idea that State acquisition of the canals would be preferable to combination and monopoly, and that even these would be better than "the present distracted system." A sum of £25,000,000, it is said, would buy and render efficient the main canal routes, including the railway-controlled portions. Even those who object to railway purchase on the ground that it would lead to an agitation for shorter hours and higher wages, do not object to the waterways being owned by the State, because the amount of labour employed is comparatively

insignificant, and because it would be an enormous advantage to the trade of the country to have cheap communication free of toll. As Mr. Clements says: "While private and local enterprise will be greatly facilitated by the Act of 1888, no early and complete improvement of the whole system is likely to be effected by any means other than State purchase." [1]

The Joint Committee (1872), with that abiding faith in competition which seems to characterise most railway commissions and committees, thought that sea-carriage afforded one means of competing with railways. They said: "There is a real and effective competition between railways and the traffic by sea, especially in the carriage of heavy goods, and this

[1] The following extract, from a recent memorial of the Association of Chambers of Commerce, indicates a practical mode of dealing with the question:—

"It has been found by experience that railway traffic has been facilitated by grouping a number of small lines which were originally independent into one large system, affording facilities for through communication. And it is suggested that with the view to a similar improvement of communication by water, facilities should, by a general law, be afforded to the formation of Public Trusts, upon which local public bodies, such as County Councils and Municipal Councils, should be represented, who would have power to acquire, by purchase or lease, convenient groups of waterways, and to develop them as means of through communication, with uniform locks and through rates. The object of such trusts would be the development of water traffic in the interests of the community and not private advantage. An example of such a trust may be found in the Severn Commissioners—a body elected by the various counties and municipalities connected with the River Severn, and having authority to raise tolls for the maintenance and improvement of navigation works in the interests of the community, but having no power to make a profit out of their undertaking beyond the payment of expenses incurred and repayment with interest of loans raised for capital outlay.

"In the event of the formation of such public trusts as are suggested, power should be given for the compulsory acquisition of any canals forming a necessary part of the system which have fallen under the control of railway companies."

competition is likely to continue, unless Parliament should give public harbours into the hands of the railway companies."

Mr. Waring affirmed that the railways had largely extended their command over docks and sea-ports, and the charge was repeated by a deputation of harbour authorities to the Board of Trade (March 17th, 1892), but the President (Sir Michael Hicks-Beach) denied it. He said: "On the contrary, Parliament has never been ready to allow docks to be taken over by railway companies. I have here a list of the applications of that kind which have been made since the year 1876. They amount to fourteen in all, and only three of them have been authorised, one of them being the Newhaven Harbour, which may be called a ferry harbour, the others being two cases where the North British Railway has been allowed to acquire certain small harbours in Scotland, of no very great public importance. So far as the Board of Trade are concerned, they have invariably, whenever an application of this kind has been made, called the special attention of Parliament to it, reminding Parliament of its own past action, of the reports of its committees, and of the objections that might be urged to any acquisition of a harbour by a railway company." Since this statement was made, Parliament has sanctioned the sale of the Southampton Docks to the London and South-Western Railway Company, and the Hull Docks will probably fall under railway control if the North-Eastern can compass it. Like railways and canals, the docks should be free from private ownership. Those docks, canals, and waterways which have been under trusts in the public interest, have been remarkably free from the defects incident to all other forms of ownership, especially that of shareholders, and even that of municipal corporations.

The railways were the strongest opponents of the

Manchester Ship Canal, itself an extraordinary illustration of how little the competition of five railways between the same points helps the trader in reducing the cost of carriage. The competing companies prophesied that this magnificent construction would never pay, and, unless it agrees with its adversaries, they can fulfil their prediction ; and if it does agree, the people who have found the millions to construct it to get cheaper carriage will not get what they paid for.

Lancashire should buy its ship canal and own it in the interest of the general population, charging only such freights as would maintain the canal in efficiency and cover expenses. The State of New York abolished the tolls on the Erie Canal as a protection against the railways. At a meeting of the Nicaragua Canal Convention, held at New Orleans, December 1st, 1892, the two policies of public and private ownership were well contrasted in a speech by Judge Jones :—

"The canal," he said, "will bring us to the markets of 900,000,000 people. If the work of construction is undertaken by a private company, the canal will be stocked and bonded for several times its cost. Commerce would thus be crippled by burdensome tolls ; while if constructed and controlled by the Government, all nations would be assured of reasonable tolls without discrimination. On the other hand, private control is almost certain to result in international complications, having their origin in exorbitant or discriminative tolls."

So the Manchester Ship Canal, if it remains a private company, will find it a difficult problem to compete with the railways and also pay a dividend on £15,000,000 of capital, whereas as a public trust it would largely aid Lancashire prosperity.

Birmingham desires cheaper access to the sea for raw material. It proposed to use Worcester as a seaport, and if realised, the transit of coals, petroleum, and agricultural produce, to the Midland towns from South Wales by the Severn and its canals will be much

cheaper. At Preston the Corporation has created a dock, because of high railway charges.

In France there are no tolls on the canals and rivers, because they were bought and are maintained by the Government, and water carriage is cheaper. It is said the Frenchman pays in taxes. Be that as it may, he has taken care that, with one single exception, no French railway has been allowed to own a canal. English experience, however, shows that water carriage *is* cheaper where railway or other private monopoly does not interfere with it. The Manchester Ship Canal may suffer unless it is made the subject of a trust in the public interest, but the Manchester people were certainly under the conviction that water transit would be cheaper than railway carriage. Was it a delusion?

As if it were not enough to hand over the public roads to private ownership, the State has made the matter worse by permitting the companies to charge "what the traffic will bear," of which of course they are the sole judges. They decide on the effect of competing routes whether of sea, river, canal, high road, or of a rival railway, and charge accordingly. Hence the variety of rates, the more complicated the better, because the more free from control or inquiry. The interests of the nation demand the shortest and cheapest routes, but companies owe no duties to the nation—only to their shareholders.

The Royal Commission of 1867 and the Joint Committee of 1872 condemned equal mileage rates because it would prevent railway companies from lowering their fares and rates so as to compete with traffic by sea, by canal, or by shorter railway routes; or "accommodating rates to the circumstances of the traffic." No question in railway economy has provoked more discussion than the power exercised by the companies to discriminate by arbitrary rates, and by different classes of goods, between one locality and

another, and sometimes between one trader and another. Before 1845 the law was that the rates and tolls to be taken "shall at all times be charged equally, and after the same rate per ton per mile throughout the whole of the (said) railway." Dr. Hunter, M.P., states "that in 1835, and three following years, nearly fifty Acts were passed imposing strict and rigorous equal mileage rates."[1] But bit by bit this was legislated away to please the companies, and they were thus enabled to make their arbitrary discriminations. The law intended that there should be no preferences, whether of localities or persons; and its intention was the same when, in 1845, Parliament annulled the above wise law, and enacted that "the company should be enabled to vary the tolls upon the railway, so as to accommodate them to the circumstances of the traffic" . . . "either upon the whole or upon any particular portion of the railway," though the charges were still meant to be equal to all persons, and not to be in favour of or against any persons directly or indirectly. And this intention was confirmed by the legal decisions of such authorities as Lord Chief Justice Cockburn, Earl Cairns, Lord Hatherley, and Lord Blackburn. It was an unfortunate change of the law; and Parliament could not have foreseen the wide extension which the companies would give to the power thus accorded them. The companies, in the face of Acts of Parliament and numerous legal decisions, varied the rates so as to promote their own interests, and, where there were two routes, fixed the rates so as to divert the traffic for the benefit of this or that line. But they went further. "There is a staff of officers whose business it is to know the business of every district, and in the same way to know every trader, what competition each man has to meet with—men who

[1] "On the Railway and Canal Traffic Act of 1888," p. 22.

give their lives to it."[1] As Mr. Waring said, "the companies not only charge less for foreign than for home produce over equal distances, but they charge less for foreign produce over a long distance, than for home produce over a short distance."

The rule of "the same rate per ton per mile," which was the law prior to 1845, seems the fair principle; but the late Mr. Grierson objected to equal mileage rates on the ground that distance (or mileage run) is "only one element out of many in cost of service," and he thought original cost of construction, nature of the gradients, amount and regularity of the traffic to and fro, extent of back haulage of "empties," and even the cost of specially expensive undertakings such as the Runcorn, Tay and Forth Bridges, the Solway Viaduct, or the Severn Tunnel, were to be taken into account.[2] This is plausible, but is it sound, even as respects the actual practice of the companies? A long line of railway does not charge a special rate upon the expensive portions of its route, or what fare would suffice to pay from the station on one side of the Forth Bridge to the station on the other side? Nor does the Midland Company put on special fares to compensate for the two millions spent on St. Pancras station.[3]

[1] Mr. Grierson, *Fortnightly Review*, June, 1886.

[2] "Railway Rates, English and Foreign," by J. Grierson, General Manager of the Great Western Railway. 1886. See also the "Working and Management of an English Railway," by George Findlay, General Manager of the London and North-Western Railway.

[3] Mr. Grierson quoted Mr. Robert Stephenson's evidence before Mr. Cardwell's Committee, 1853, to show the unfairness of an equal mileage rate. Owing to the difference of gradients on the railway from Newcastle to York, and towards the rivers Tees and Tyne, one engine was able to do nearly four times (3·466) more than another engine. Even then there could be no such difference of rate on the respective portions as these figures represent; and when the various lines were amalgamated into one, as the Great North-Eastern Railway, though

As to *lowering* rates to enable longer routes to compete with shorter routes, recent decisions afford some light. In the case of Phipps *v.* London and North-Western Railway it was decided by the Supreme Court of Judicature (March 8th, 1892) that a railway may, without infringing the law passed to prevent undue preference, charge the same rate to two customers for carriage to a market twenty miles more distant from the one than from the other, provided the more distant customer has the choice of a competing route. That the London and North-Western Railway might be able to compete with the Midland, it was thus authorised to charge the plaintiff 9d. to 1s. more per ton for his iron, coal, and coke, than he need have paid if he had been charged at the same mileage rate as those charged to his competitors. He was thus deprived of the benefit derivable from his greater proximity to the market for his iron. Similarly in the case of the Liverpool Corn Trade Association *v.* Great Western Railway, the plaintiff complained that the rates from Birkenhead to Birmingham, as compared with those charged for the same service

the difference of cost might remain, the rate would probably be uniform—at least any variations of rates are not due to the fact quoted.

The report to the Traders' Conferences quotes figures supplied by the Midland Railway Company showing mileage conveyance charges only, with terminals eliminated :—

	Class 1. *d.*	Class 2. *d.*	Class 3. *d.*
Worcester and Manchester, 104 miles	1·73	2·01	2·78
Swansea and Newark, 207 miles	1·73	2·07	2·85
Another comparison :—			
10 rates, 11 to 27 miles	1·56	2·01	2·78
10 rates, 107 to 125 miles	1·62	2·05	2·59

Though these were the *actual* rates, the company proposed to double them for short-distance traffic, and when the traders urged that no reason for such increase existed, "the court and the railway companies both agreed that argument was wasted on so idle a proposition."

from Bristol and Cardiff, were excessive, as Birkenhead was so much nearer to Birmingham. The company said they were bound to charge the rates they did, otherwise they would lose the traffic from those places to Birmingham, as the same rates were charged by the Midland Company and by water routes. The Court (the Railway Commission, May 2nd, 1892) approved of this contention—thought that the Liverpool traders, notwithstanding the difference in rates, were able to compete in the Midland markets.[1] Thus Birkenhead, in the interests of railway competition, had to lose the benefit of its shorter route, a reversal of former legal decisions, and at all events contrary to the public interest, and rendering nugatory the Act of 1854 providing that like rates

[1] Some few months previously this Association obtained an injunction against the London and North-Western Company requiring them to abstain from unduly preferring the traffic from the port of Cardiff to that from the port of Liverpool. In that instance the charge for the carriage of grain from Cardiff to Birmingham, 173 miles, was 8s. 4d., being at the rate of 0·6 of a farthing per ton per mile, while the charge from Liverpool to Birmingham, 98 miles, was 11s. 3d., being at the rate of 3·5 farthings per ton per mile, after making allowance in each case for the cost of terminal services. The Court then held that nothing in the circumstances brought before them could justify so great an inequality in the rate of charge, but the North-Western Company elected to exercise their option as to the mode of obeying the order made by sacrificing their Cardiff traffic and leaving the Liverpool rates undisturbed. In the present instance the applicants compared the charge for grain to Birmingham from Birkenhead, 98 miles for 11s. 3d., with that from Bristol, 142 miles for 7s. 8d., and their witnesses attributed to this cause a great falling off in their trade with Birmingham and with other of the principal towns in the Midlands. The secretary of the Association put in some statistical information showing that during the 12 years from 1879 to 1891 the imports of grain at Liverpool had remained practically stationary at about 1,500,000 tons, but the Bristol grain traffic during this period had increased from 336,000 tons to 603,000 tons, while that at Cardiff had grown from 50,000 tons in 1879 to close upon 140,000 tons in 1891.—From the *Times* report.

shall be charged under like circumstances. As Mr. Hunter, M.P., said, "The sound principle is that goods should go by the route, whether by land or sea, which is naturally the best and therefore the cheapest." But not only should goods be allowed to go the shortest route, but there is no just reason for the numerous differences in the classification of goods, and a much smaller classification, say three or four classes, would have served equally well. The cost of service would be a fairer principle than the nature of the commodity carried, which really amounts (as Sir Edwin Chadwick says) "to pernicious protective duties or sumptuary taxes."

Another reason assigned against equal mileage rates is that they prevent the company from carrying at a lower rate goods brought in large and constant quantities. It is a greater evil to give railway managers the power of varying rates in favour of large as compared with small producers. The public "gain more by certainty than they lose by inequality." The discrepancy of opinion on this subject is remarkable. Mr. Acworth mentions that, thirty-five years ago, the Court of Common Pleas decided that a railway company may carry at a lower rate in consideration of a guarantee of large quantities and full train-loads, provided the company affords the same facilities to all others on the same terms, though to small traders the offer is practically illusory; that the American Interstate Commerce Commission declared this discrimination between small and large quantities to be unjust, while the late Joint Committee unanimously decided "that the charge should be on the same scale for four as four thousand tons."[1]

The comment of the Traders' Report is that where an equal mileage rate raises rates, the companies objected on behalf of the traders, and where

[1] *Nineteenth Century*, December, 1892, p. 940. See Note J, p. 384.

it lowers them they objected on their own account. The power to levy unequal rates leaves an opportunity for overcharge, favours undue preferences, or at least lessens the check upon them. In this connection it is singular that, as a Bradford correspondent with the Board of Trade pointed out, there has never been any legal definition of "distance," whether it means the shortest route, the actual route, or the "commuted distance," so that the railway companies are free to fix the distance and the rates in proportion according to the routes they select.

It is not a question whether the interests of the railway company must often coincide with those of their customers, but, as Mr. Waring, says, these questions of rates do "not affect the public policy of leaving these immense powers in the hands of a giant monopoly which is bound to play for its own hand." "They are absolute masters of the district, and able to fix the rate of profits, and, incidentally, the rate of wages. A resolution of the directors could ruin the industry of a district in a week." . . . "The iron industry in South Staffordshire is at the mercy of the railway company." . . . "They may use their power for the general welfare, but it depends upon their good-will. They might extinguish every blast furnace, if they pleased, to the ruin of the trade, and the displacement of the population." . . . "Such questions ought not to be dealt with by a railway caucus, but by the State." . . . "If the conveyance of a hundred passengers and a hundred tons of merchandise would fill the railway coffers more than the conveyance of a thousand, only one hundred would be carried."[1]

Under a system of separate railway interests, when the railway managers hold their conferences "to mitigate the severity of competition by agreeing amongst

[1] "State Purchase of Railways," by Charles Waring.

themselves what the rates between competing points shall be,"[1] or when, "in order to avoid losses from competition," they pool their receipts (percentage division of traffic) they necessarily take cognisance of such differences of cost of service as between each other. But as in long lines the extra elements of cost partially disappear in the general average of mileage, so would they entirely disappear in all railways owned by the State, as when the tolls are removed from a costly bridge and merged in the general highway rate. Moreover, a large portion of the total profit from railways is derived from passengers, and these are based on mileage.[2] Equal mileage rates are, however, not a necessary condition of State-owned railways. Indeed, Sir H. W. Tyler "could not see why the State should be obliged to provide equal mileage rates over the whole of the railway system."[3] He would make no change until experience had determined what was best, and that, we believe, will be found in a uniform mileage rate, and ultimately in a still simpler form of charge.

Subject to some small qualifications, Mr. Grierson admits that in Holland "the basis of a mileage scale is practically the same throughout," that in Belgium it is "a mileage scale graduated according to distance," that in Germany "the rates for conveyance are based on a mileage scale per 100 kilogrammes and per kilometre."[4] So that the principle of a mileage rate is after all not so very unreasonable. Certainly it is not so unreasonable as a principle

[1] Findlay, p. 207, "The Working and Management of an English Railway."

[2] Roughly speaking, 2d. per mile for 1st class passengers, 1½d. per mile for 2nd class, and 1d. for 3rd class, passenger duty being added to the 1st and 2nd class fares; but where there are competing routes, or omnibus or tram competition, these rates are often considerably reduced. (Findlay, p. 206.)

[3] Report of Joint Committee, 1872. Evidence, p. 658.

[4] Grierson. Appendices 12, 27, 44.

which enables the seller of conveyance to fix the price of it to the buyer on conditions that the latter can neither judge of nor control. Better a definite fixed rate than "special" rates at the discretion of a traffic manager, whose fiat may be unjust but cannot be questioned. Sometimes, when carriage is a small element of cost, the rate does not much matter, but often it forms a serious item, equal to the whole profit on the transaction. That a railway might secure traffic which would probably have gone by another route, it would lower the rate to the foreign producer, and the English farmer was astonished to find himself undersold by a competitor thousands of miles off, or sometimes the iron manufacturer or coal proprietor was hampered by a rate that rendered profit hopeless. Under the pretension "to equalise the conditions of competition" the companies obtained the power to handicap this or that traffic as might best suit their own interests, and provided they did not use this power too grossly, their customers submitted rather than legally contest it at great trouble and expense.

If one were merely guided by the light of common sense, one would think that the duty of a railway company was to carry its customers' goods at the cost to itself of carriage, with a reasonable charge for the services included under the head of "terminals" and a fair profit added. One would think that all other conditions might be left to settle themselves, without the companies debating questions of compensation for this or that route, or to this or that trader. When they go beyond the functions of carriers and become legislators on behalf of producers or their customers, they take up a very complicated business. It seems beyond the functions of a railway director to equalise or to compensate for inequalities created by other means of conveyance—the ocean, the canal, longer or shorter railway routes,

—to become, in fact, the earthly providence of this or that cattle-grower or coal-owner. Nor would such powers have been permitted if railways had been public instead of private properties.

At a deputation of the Association of Chambers of Commerce to the then President of the Board of Trade (the Right Hon. A. J. Mundella) he said the railway companies "have nothing to do with the question of origin; they have only to do with the services that are rendered to the trader."[1]

So long ago as 1872 the Association of Chambers of Commerce appointed a committee to report on the inequalities of railway rates. The committee, taking the calculations of the railway companies themselves, showed that their rates from one town or district for the same class of goods, and in similar lots, is often

[1] 30th March, 1886. At the same deputation a large ship-owner, Mr. C. H. Wilson, M.P., said, "All this divided authority, this enormous expense of management, boards of directors, who do not attend to their business as a rule, with managers at £4,000 a-year, and all competing with one another, I think that is striking at the root of the prosperity of this country. The railway rates are enormous. I do not like trespassing upon your time, but I can give instances from Hamburg to the Humber, for the last two or three years, where flour has been carried to the Humber at 2s. 6d. a ton—400 miles. You know how that compares with railway rates. We are carrying by sea from Liverpool to Hull, 800 miles, at a lower rate—at two-thirds of the rate that the railway companies would carry 120 miles by land. They have got the canals into their own hands to a great extent, and if something is not done to put a stop to the railway monopoly as it now exists, I feel quite certain, from my own experience of foreign countries, that we shall lose a great deal of the trade that we ought to carry on."

In his report to the Association of Chambers of Commerce on the Continental railways, Sir B. Samuelson mentions that, "In the report of the Minister which accompanied the 'project of law for the acquisition of some private railways by the State,' great stress was laid on the mischief arising from the power of favouring one district and damaging another by their tariffs being left in the hands of private companies under what is virtually a monopoly of the highways of the country."

two or three times as high as that charged for other towns or districts; that the railways only charge low rates when compelled by competition with other railways, canals, rivers, or sea, or when goods could not reach a distant market except at reduced rates. They then go on to say: "It is therefore clear that the interests of the public are in opposition to the policy of the railway companies. The public argue that the trade *of the whole country* should be developed by the carriage of goods and passengers at the lowest rates consistent with fair profits. The companies say that where there is no competition, either direct or indirect, the traffic must come through their hands, and that it is therefore their interest and their right to charge the highest rates permitted by law. The public say that in places where no competition for freights exists, the manufacture and sale of goods is prevented by the rates exacted, which are high in comparison with the favoured districts; and that the trade of such towns would be largely developed if more equal rates were charged. The companies say that they only charge what the traffic will bear, and that so long as people go on manufacturing, the goods must be sent away. The public show that the railway companies can and do carry at rates very much below the maximum allowed by law; they find that all the lines struggle eagerly for the traffic at these low rates; they find that some of the lines on which the lowest rates prevail are very profitable, and they conclude that a general equalisation would benefit the companies as well as develop trade. The companies reply that it is their business to consider how to get a profit, and that the public has no right to complain so long as the law is observed. They say that when they charge the maximum legal rate they are acting justly, and when they charge less they are acting generously."

"It is plain, of course, that the whole weight of the companies' argument lies in the assumption that

the maximum rate is a fixed quantity which no power of law is likely to alter, and no considerations other than legal will induce them to abandon. According to them, the natural, the proper, the just rate, is the maximum allowed by law; and if anything like equality were enforced, it would be raised to that. From this assumption it follows, of course, that all low rates are concessions. But we deny the assumption altogether. The rates were fixed tentatively in the very infancy of the railway system, and cannot be quoted as authoritative estimates of what is fair. The natural and just maximum is the lowest rate that will give a fair profit to the railway companies; and in that view the high rates, though within the legal powers of the company, are overcharges. If it be once allowed that the maximum rates are a variable quantity, and that they should be modified in course of years, according to the increase or decrease of the cost of carriage, then the whole case of the companies falls to the ground, and it becomes clear that the public was really right in assuming that there is no defence for very unequal charges."

The above was the traders' view in 1872, and they recommended as a remedy that "the maximum rates and charges allowed shall be subject to revision by the Board of Trade every two years, and in making such revision the Board shall take into account the lowest rates charged by the company during the preceding years, and the amount of profit earned, and shall hear evidence from the railway company and from the public. The rearrangement of rates shall be laid before Parliament, and if not rejected within days, shall become law."

Those who adopted this recommendation had not the experience afforded in 1890 and 1891. The enormous task then accomplished[1] leaves more to

[1] Some idea of the magnitude of the inquiry may be gathered from the fact that 211 witnesses were examined, 43,000 questions

be done, and might suffice almost for a generation. Nor would such a just revision be possible unless the companies were to make not only full returns of the rates for the principal commodities between the most important trade centres, but of the tonnage carried of these commodities.

If State ownership were unattainable, revision of rates by the Board of Trade from time to time, though onerous, would be the only means for the protection of the public and securing reasonable charges. Nor could the companies justly object to such revision, for it forms a part of their bargain with the nation. Railway companies which claim vested rights in their rates seem to forget that every railway Act contains the following clause, asserting the right of Parliament to alter rates: "Nothing in this Act contained shall exempt the company or the railway from the provisions of any general Act relating to railways, or the better and more impartial audit of the accounts of railway companies, now in force, or which may hereafter pass during this or any future Session of Parliament, or from *any future revision or alteration under the authority of Parliament of the maximum rates of fares and charges, or of the rates for small parcels authorised by this Act.*"

Mr. (now Sir) B. Samuelson rendered a public service in obtaining a Standing Order (113a) not only securing the rights of those persons whose interests were affected by railway Bills to appear against them, but also to complain of rates already authorised on existing railways.

Railway legislation has been a continual progress

put and answered, 2,256 tables of figures were put in, 4,000 objections from 1,500 objectors passed in review, and the official minutes covered 3,926 pages. There was a public inquiry of 85 days before the Board of Trade, and 45 days more before the Joint Committee, and neither the traders nor the companies were made content. Such a process every two years would be impossible.

of public education. For a time the shareholders' view, and to a considerable extent that of the public, was that Parliament had made a bargain with the companies—"spend your money if you like—run all the risk, and we empower you to charge certain fixed rates for the use of your lines."[1] But the mistake of such a bargain was discovered, and it was found that sometimes the interest of the public was one thing, and that of the companies was another. Three Commissioners of Railways were appointed in 1873 with very large powers, including some possessed by the Board of Trade and some by the Court of Common Pleas. Before this tribunal was appointed, if railway companies did not agree about through rates over each other's lines, or raised obstructions *inter se*, the public had no remedy for inconveniences thus caused. As the Commissioners could compel the companies to give reasonable rates and facilities to each other for through traffic, attempts were made to carry out to some extent the object of the Chambers of Commerce, and enable traders to deal on reasonable terms with the rates and charges. This was virtually to modify the bad bargain that had been made against the public. It was, however, loudly denounced as "confiscation," a term ever ready for use—the lamb is always confiscating the stream of the wolf—and the proposal was defeated.

The later attempts of 1891 were more successful, but were far enough from fulfilling the demands of the traders. If the public want railways to be what they ought to be—for the public benefit—the State should buy them at their fair value. This is their logical alternative; not, as in America, to permit private corporations to fix rates, nor to attempt to regulate them as in England by the Government, except it were as owner or trustee for the public.

[1] "Railway Legislation," by S. Carter, 1875.

Mr. Waring quoted a statement of the Mining Association of Great Britain that the high rates were slowly but surely killing the trade of the country. To which Mr. Grierson replied by showing that the charges per ton from the iron and coal fields nearest to the sea are less than the Continental charges to their own ports. But, as Mr. Waring showed, apart from the consideration that if we have natural advantages we have no need to present them to the railway companies, he pointed out that the nearest port is not necessarily the destination of the produce, and that the true comparison is the total charge from the place of production to the place of consumption, and that when we want to compete on the Continent, we find ourselves driven out of our old markets by lower foreign rates. Girders from Belgium were sent through Grimsby for a lower rate per ton, though there is loading and unloading twice over, than from Sheffield to Grimsby with one loading and unloading. The Northumberland farmer says, "It will cost me more to send cattle to Liverpool than to send them from Chicago or New York." It costs more to send grain from the eastern counties to Birmingham than it does from Odessa. And it costs more to send cheese from Cheshire to London than to take it from New York right past the Cheshire stations to London.

We laugh at the Continental Protectionists who have undertaken the task of adjusting the conflicting interests of various industries—a duty on this or that, to be compensated by a countervailing tax on something else. But that is precisely what we have permitted the railways to do in this country. Having permitted it, and produced universal dissatisfaction, we are reduced to the necessity of asking the Board of Trade to settle between the traders and the companies the rates and charges on thousands of articles. Had the British Government proposed to levy bounties upon commodities in favour of foreign countries

equal to those imposed by the companies merely to secure traffic that would otherwise go by cheaper routes, the nation would have rebelled. Yet these irresponsible companies assumed this power—charged unequal rates for the same goods as between different towns, and, as Mr. J. B. Pope put it, "claimed to be allowed to compete in a race in which they not only decide the weights to be carried by themselves, but also those to be borne by their competitors.[1] For a body of traders to be allowed to inaugurate such a system, affecting as it does to so large an extent the varied interests of competitors and persons scattered over hundreds of miles of country, and to do all this at their own sweet will and pleasure, is, to say the least of it, one of the most striking, and at the same time pernicious, anomalies ever recorded in the annals of a commercial country," notwithstanding "the fact that the Select Committee arrived at a distinctly opposite conclusion."[2]

Mr. Acworth[3] contends that these preferential rates are in the interests of the traders, and especially of the public. If this be true, there never was a greater delusion than that to which the large body of traders have been subject. The evidence taken before the Select Committee of 1881 and 1882 is full of complaints both of exorbitant rates and unjust preferential ones. It did not matter what the article might be, eggs, lime, manure, hops, cattle, sheep, coal, pig-iron, grain, or stuffs, large buyers or makers of all these articles tendered evidence against the companies.[4]

[1] "Railway Rates and Radical Rule," p. 103.

[2] *Ibid.* p. 112.

[3] "The Railways and the Traders," by W. M. Acworth, 1891.

[4] Before the Railway Rates Committee of 1881 such facts as the following were given. A ton of eggs carried 80 miles, legal charge 13s. 4d., actual charge £3 for putting the baskets in and out of the train. Preferential rates to Burton against Derby gave the former an advantage of 2s. per barrel. Some traders had an advantage of nearly 300 per cent. over others.

The dissatisfaction of the traders through a series of years culminated in the passing of the Act of 1888. This Act authorised, *inter alia*, the revision of railway and canal companies' maximum rates and charges, and preliminary inquiries under the Board of Trade. The companies having submitted revised schedules of maximum rates, the Board of Trade took the rates of one (the London and North Western) as a basis. The companies had a splendid opportunity. The whole system of rates was thrown into the melting pot. They had long been dissatisfied with the grudged and perhaps inadequate payment for terminals. By an ingenious process of dividing charges they were able to add considerably to the cost of carriage. There are warehousing charges, terminal charges for loading, unloading, and covering known as *service* terminals, then there were station terminals. The warehousing charges are only charged in respect of certain goods, and are in addition to the "terminals," which are of two sorts. First, the loading, unloading, and covering, which are now known as *service* terminals, and more particularly the provision of station accommodation, the charges for which are now defined as *station* terminals. It is in respect of the latter that one great controversy has raged, the railway companies contending that the provision of stations was incidental to the duty of the carriers, and not

Hops from Sittingbourne to London charged 36s. 8d. against 25s. for a similar distance, plus a sea voyage from Flushing. Foreign cattle, £2 4s. 3d. per truck—English, £3 7s. Foreign sheep, £2 4s. 3d.—English, £2 14s. Bradford goods 60 per cent. less carriage to the foreign than to the home trade buyer. Coal and iron charged 25 per cent. above the legal rate. Dead meat from Liverpool to London, 50s., but 25s. for American. Iron from Cookley to Southampton, 158 miles, 21s. 8d.; but from Swansea, for 222 miles, only 15s. But enough. We know not how far the new schedules will rectify the above anomalies, but it is tolerably certain that after the above legal decisions the companies will be able to make any number of similar ones, if their interests require it.

of the railway company. The traders took the opposite view, and after much litigation the railway companies gained the day both in the Law Courts and in Parliament. The duties included in the charge for "terminals" the companies undertook all the more readily because their Acts, while prescribing rates and tolls from station to station, had not fixed charges for the facilities known as terminals, and had left them to be determined by the companies, who found them capable of expansion so as to make up for less remunerative rates of carriage. The Companies Acts, while prescribing rates and tolls from station to station, had not contemplated, or at all events had not fixed them for the above services, which were supposed to be incidental to their duty as carriers. Some of these charges were as absurd as if they had proposed to charge a railway passenger so much for his fare, and so much more for the station from which he departed or at which he arrived, and an extra sum if the station were a costly one. The companies were asked to specify the nature and amount of the services for which the charge for terminals was made, but, as the Traders' Report says, "the subject was left in greater doubt than before," the result being that the companies confirmed their power to charge for services whether required or not, and even though not rendered. That they should fight hard on the terminals is not surprising, since these sometimes form 50 per cent. of the whole charge, and are on the average upwards of 20 per cent. of the total revenue, while the cost of locomotive power is less than 25 per cent. of the total working expenditure. By the above ingenious process, without making any material increase in mileage rates which are easy to estimate, but with terminal charges which nobody can measure, the revision of rates has given a splendid chance to the companies to adjust charges to their own advantage!

They prepared schemes of advanced rates which, if enforced, would double the value of railway property. As an illustration, the Traders' Report states that while the companies charge each other for services in connection with the receipt and despatch of goods 1s. 6d. per ton, the sums "proposed to be made payable by the traders commence with this 1s. 6d. for low-class traffic at country stations (where, as a rule, the services are not rendered), and increase step by step to 4s. for the country, and to 5s. 6d. for London and other places."[1] The Traders' Conference showed that an increase of 6d. per ton is about equivalent to an increase of 10 per cent. on the gross merchandise receipts. The companies asked for an increase of 1s. 8d. on about one-quarter of their traffic, and of, say, 2s. 6d. on about one-half of it.[2]

Messrs. Waghorn and Stevens' report to the traders states that terminals in France are 4d. per ton for services, and 3½d. for station accommodation at either end, that in Belgium the service terminal is about 5d., and in Germany less, and they naturally ask what can justify the increase of the charge of 5d. in those countries to 4s. or 5s. 6d. in this. As the report of the traders in the new proposals of the companies expressed it: "So far from being a mere consolidation and revision of existing powers, these constitute in effect a claim on the part of the railways to have their existing powers enormously increased, to have every actual illegal or doubtful charge justified, to have all exceptional privileges made universal, and to have every disputed contention ever raised by them decided finally in their own favour." When the companies presented their revised rates to the Board of Trade, the traders were alarmed. The Board was in the unpleasant dilemma of injuring

[1] Traders' Report, p. 63. [2] *Ibid.* p. 78.

the traders or the companies. Yet not to do either required almost superhuman wisdom. Mr. Marshall Stevens, on behalf of the Lancashire and Cheshire conference of corporations and traders, and other objectors, prepared elaborate tables showing the proposed increase in the cost of carriage of various commodities. A few examples will suffice. By the proposed new rates the Corporation of Manchester would have had its expenditure of £61,000 on carriage increased by £41,000. Thirteen firms in the Lancashire stone trade were asked to increase £26,000 by nearly £18,000. Carriage from Manchester to Liverpool was asked to be increased from 8s. to 19s. 10d. per ton. The tables prepared by Mr. M. Stevens showed enormous increase in the maximum rates, amounting in some cases to several hundred per cent.[1] In a few cases the companies denied the accuracy of his statements,

[1] Table showing the railway rates charged between Liverpool and Manchester upon the undermentioned goods at the time of the passing of the Railway and Canal Traffic Act, 1888, together with the revised maximum charges lodged by the London and North Western Railway Company to cover like services, and also a comparison between the two.

A.—The railway rates charged from Liverpool to Manchester on the 10th of August, 1888.

B.—The revised maximum rates and charges as proposed by the London and North Western Railway Company for services which are included in the rates charged in column A.

(Account has been taken of the changes in classification contained in the amended schedule deposited jointly by the railway companies, October 24th, 1889.)

C.—The results.

As a pendant to these proposals, take the statement made by Mr. F. R. Conder, C.E., to the Manchester Statistical Society (November 30th, 1882) :—"The statement might well be regarded as incredible, were it not supported by indisputable evidence, that fifty years after the opening of the Liverpool and Manchester Railway it costs more to convey a bale of cotton from the one city to the other than it did in 1829." Yet, he says, "The cost of locomotive power was four times as much per ton of train moved as is now the case." (Canals Report, 1883, p. 220.)

ARTICLE.	Class in proposed Classification.	A	B							C		
			PROPOSED MAXIMUM RATES.							COMPARISON.		
		Railway Rate. Aug. 1888.	Liverpool.		Conveyance say 32 miles	Manchester.		Total Proposed Maximum Charges		Decrease as compared with Actual Rate Charged	Increase as compared with Actual Rate Charged	
			Station Terminal	Service Terminal		Service Terminal	Station Terminal					
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.		s. d.	s. d.	
Cotton	1	7 2	2 0	1 6	7 6	1 6	2 0	14 6		...	7 4	102% incr.
Wool	2	9 2	2 0	1 9	8 2	1 9	2 0	15 8		...	6 6	70% ,,
Sugar (Lump) ...	3	10 10	2 0	2 0	9 1	2 0	2 0	17 1		...	6 3	57% ,,
Do. (Unrefined)	1	6 8	2 0	1 6	7 6	1 6	2 0	14 6		...	7 10	117% ,,
Bacon and Hams ...	2	9 2	2 0	1 9	8 2	1 9	2 0	15 8		...	6 6	70% ,,
Tinned Meats ...	2	9 2	2 0	1 9	8 2	1 9	2 0	15 8		...	6 6	70% ,,
Tea	3	10 10	2 0	2 0	9 1	2 0	2 0	17 1		...	6 3	57% ,,
Grain	C	6 3	1 3	0 9	6 2	0 9	1 3	10 2		...	3 11	63% ,,
Fruit (Oranges) ...	2	9 2	2 0	1 9	8 2	1 9	2 0	15 8		...	6 6	70% ,,
Petroleum	2	9 2	2 0	1 9	8 2	1 9	2 0	15 8		...	6 6	70% ,,
Tallow	1	7 11	2 0	1 6	7 6	1 6	2 0	14 6		...	6 7	83% ,,
Iron Ore...	A	4 2	0 8	...	2 8	...	0 8	4 0		0 2	...	4% decr.
Timber	C	6 8	1 3	0 9	6 2	0 9	1 3	10 2		...	3 6	52% incr.

Town Hall,

Manchester, November 8th, 1889.

but they also argued that the proposed rates were only maximum rates, which they did not intend to enforce; that they would charge less, but could not charge more; and that in their own interest they would only charge reasonable rates, and not such as to discourage traffic.

But minima have sometimes a tendency to become maxima, and it is unreasonable to have the conditions of a bargain in the absolute control of one side only. If the Government had made the *actual* rates the only *legal* rates, they would have done something effectual for the traders and the public. But the evil of maximum rates, which, though not charged yet, will probably be gradually approached, and at last reached, gives the high rates a legal sanction of a dangerous kind. The railway managers, ever on the watch to secure an advantage, are more than a match for that unorganised body the public, which will fall asleep when the present agitation has subsided, and will find that it is as completely under the control of the companies as ever. Moreover, the companies are faced by a growing evil—lessening profits, not too large before.[1] It might be remedied by a consolidation of the railways under the State, enabling large economies to be effected by combination. But as such an arrangement is not immediately probable, the companies will try the easier method of raising rates and fares, and for this alternative the public will have to prepare itself as the price of permitting the present system.

The former maximum rates authorised by law

[1] The gross receipts per train mile in 1891 was 4s. 10d. (a reduction on the two previous years), and in 1882 5s. 2d., and the average working expenses per train mile in 1891 was 2·79s. (in 1890 only 2·76s.). In other words, working expenditure increased over the previous year by nearly two millions, and net earnings fell off by over £28,000, notwithstanding large increases in passengers, goods, and minerals.

were much too high, higher than those actually charged, and the Board of Trade felt that it could reduce them without loss to railway profits, provided it left a margin for future variations. So long as maximum charges are only paper charges, traders disregard them. When the companies endeavour to make them actual ones, as they are sure to do, the agitation will revive. Maximum rates which hereafter may become actual ones leave an opening for endless controversy. But terminals—which before were in some cases not authorised and in others indefinite, were vaguely fixed at a "reasonable charge"—were legalised and fixed at definite rates, somewhat below what the companies proposed,[1] but still high enough to much more than compensate for any reduction in mileage rates. Cartage, which the companies charge on the three highest classes of goods, is not defined, but is also to be a "reasonable sum."

The net result is that the carriage of goods will not on the whole be lower, but often higher than before the inquiry. The power of the companies to give discriminating rates will not be lessened. The rates should, in case of increase, be published, as required by the Act of 1888, and the trader must still address a special inquiry to any goods station to learn what he is to be charged, of which, as a rule, he will be ignorant.

The companies have spent an enormous sum (said to be between £200,000 and £300,000) to carry out the Act of 1888, and the net gain so far known, and a valuable one, is that 3,000 Acts of Parliament have been compressed into about thirty-five. The companies affirm that, as a whole, the result will be a loss to them—in the case of the North Western

[1] The companies asked for station terminals of from 1s. to 3s., and for service terminals from 1s. to 5s., and restricted to service actually rendered. They obtained for the former 6d. to 3s., and for the latter 8d. to 4s.

of about £70,000 per annum, the Midland of £60,000 (principally on its coal and iron), and the Great Western of £90,000. To lines that pay dividends of 6 and 7 per cent. each such losses will be trifling, but we much doubt the correctness of these estimates. The companies have not stated the basis of their charges for class rates, terminals, &c. As a great proportion of traffic is not carried by class rates, but by special rates, which cannot be easily checked, the final outcome is still more doubtful. Goods, unlike passengers, *must* be carried, whatever the rate, unless prohibitive. Passengers are deterred from travelling by high fares ; but consumers must have their coals, sugar, &c., and within a rather wide margin the companies can do as they like. The maximum charges for small parcels have in some cases been much reduced, but the Post Office must still be taxed 55 per cent. on its parcel post by railway, so that it actually finds, in many instances, the horse cheaper than the railway. The minimum consignment at tonnage rate is lessened from five to three cwt. The report of the traders on the companies' proposals shows the extravagant demands which the companies were prepared to make in reference to the carriage of small consignments, which form so important a part of railway traffic.[1] It is said that some of the rates are unremunerative, and that the effect of the rate on the cost of commodities is so small as to be of no consequence. Mr. Acworth has given

[1] The Great Western proposed to raise the carriage of such articles as apples, bacon, biscuits, coffee, &c., from Bristol to London, from 22s. 8d. per *ton* to 19s. 1d. per 4 *cwt.* One witness stated that the proposed change for "smalls" from Manchester to Plymouth would increase the actual charge of £222 to £911, and from London from £92 to £260. To the Army and Navy Stores the proposed addition to charges on "smalls" and empties would, if adopted, amount to over £19,000 per annum. (Report of Messrs. Waghorn and Marshall, pages 38 to 41.)

interesting cases to show that it is not the railway company, nor even the producer, but the numerous middlemen interposed between the consumer and producer, who cause the greater part of the cost of commodities. It may be so sometimes, but cases may be cited—the evidence before various committees is full of them—where carriage forms a serious element of cost. The trader, it is said, will not suffer, because he in turn levies the cost of carriage on the consumer. So that, after all, nobody is much aggrieved, and the agitation of many years is really about nothing of consequence!

While it must be admitted that the new classification is superior to the old, yet even now what a complicated piece of business it is! Once on the rail, distance becomes a secondary consideration; and this principle has to some extent been recognised in a reduction for long distances, but not for the shorter ones, though these are the more important. Apart from the amount of charge, the complexity is surprising. Mr. Clements[1] has selected four of the most common distances, and gives the rates per ton, showing that there is a different rate for each of the distances of twenty miles, thirty miles, fifty miles, and the remainder of the distance. Even these rates are not uniform for the above distances, and all these again vary with the eight classes of merchandise into which the goods are divided. As if this were not complication enough, the nine companies have four different rates for station terminals, one at each end of the journey, and these again vary according to the class of merchandise to which they belong. Add to this that six of the eight classes of merchandise have to pay service terminals. These are of four kinds, loading, unloading, covering, and uncovering,

[1] Report of the Mansion House United Association on Railway Rates, December, 1891.

and these again are at six different rates, according to the class of merchandise to which they apply. The rates are quoted in decimals of a penny, not yet popular, and cases of overcharge will therefore not be easy to check. There is an exceptional class for whatever is not included in the eight classes already mentioned. For this there is to be charged "such reasonable sum as the company may think fit in each case." A writer in the *Times* (December 16th, 1892) on the new railway rates says: "It may safely be said that the aid of a trained lawyer will still be necessary to a trader anxious to know whether a rate from London to Swansea or Birmingham is legal or illegal."

Is it matter for wonder that, with all these complicated arrangements, there should be 50,000,000 rates, a complete set of which for the North Western alone would fill 2,000 volumes? And of course the other railways will each need their proportion of hundreds of volumes! The mind is dazed at the thought, and contrasts this statement with that of Sir Bernhard Samuelson that the German rate-book is an octavo handbook of 76 pages, and with that of the late President of the Board of Trade (Sir Michael Hicks-Beach) that when the whole work was completed, the Board would be able to publish within a single small handy volume all the rates and charges for goods on all the railways of the United Kingdom."[1]

In the perishable articles by passenger trains there are three divisions and six rates according to distance, also with station terminals and service terminals, and a provision that for consignments of less than a hundredweight the company may charge as for a hundredweight. How far these new rates are

[1] Speech at the Bristol Chamber of Commerce, April 13th, 1892.

conferring a benefit is shown by the petition of the Midland traders, asking to be heard before the Joint Committee. The petition pointed out that the agitation of the country brought about the present railway legislation with a hope of effecting a considerable reduction of tariffs; that the country still expects that hope to be realised; that the fishing industry is being ruined by high railway rates, numbers engaged in it being in a state of starvation, while large quantities of fish, which the inhabitants of towns would be glad to have, are being wasted. The petitioners therefore prayed that for the high set of figures in the schedules a very much lower set be substituted.[1]

The Chambers of Agriculture again passed a resolution calling attention to the practically prohibitive charge on cider apples carried in open trucks and worth 3d. to 4d. per bushel, being at the same rate as for table fruit worth 5s. to 6s. per bushel. When we consider that beyond all these rates there comes the distinction between maximum rates and actual rates, rates which the companies could charge, but don't, and rates which they do charge, the procedure can hardly be called a simple one. In cases of overcharge, the trader has power to appeal to the Board of Trade; it is a safe provision for the companies, as few traders would take the trouble unless the overcharge is considerable, and then it only settles the case of a single trader, and does not prevent a repetition of the overcharge to another trader.

There was no doubt every desire on the part of the Board of Trade to hold the balance evenly

[1] Mr. Joseph Chamberlain, M.P., showed great sympathy with the object of the petition, and said that he had always maintained that the Board of Trade, and also the Committee, had gone upon the wrong tack from the beginning. "It is like this," said the right hon. gentleman: "you have a rate of 9d., which you want made 8d., but the authorities give the railway companies 1s., and they may if they like raise your 9d. rate to 10d., but need not lower it; and what can you do?"

between the traders and the railway companies, but the Joint Committee was not equally fair, and set aside the proposals of the Board of Trade. The committee often gave more support to raise than to reduce the rates, and the chairman (the Duke of Richmond) ruled numerous points against the traders, and sometimes refused to hear them. He is said to have *once* agreed with the traders, and that was as to what constituted a truck load of hay. One thing is certain—that the result of this, as of all previous committees and commissions, will fail to meet the case of the traders.

One result of the Act of 1888 is the power it gives to traders to go to the Board of Trade without expense before resorting to litigation. Though the Board cannot compel the companies to give redress, its reports to Parliament and its power to introduce legislation will doubtless prove advantageous.

The new Acts of 1891 have, in some respects, reduced maximum rates in the interest of the public, and, by deciding definitely what these rates shall and shall not include, have so far effected an improvement. But the companies have still too large a latitude. They will still have the power to decide what is "reasonable," "what the traffic will bear," &c., and there is still left them a margin by which they may impose in the not distant future a considerable and undue tax on the community. So little have matters improved that Mr. Marshall Stevens stated [1] that in the case of the thousands of tons of goods sent from Manchester to London, if intended for this country the rate was 40s. per ton, but if for shipment in London the rate was 25s., and he further said that "he did not believe the new Act, with all its new regulations and tariffs, would have the slightest effect."

[1] Meeting in Newcastle-on-Tyne, October 15th, 1891.

Mr. Acworth did not believe that the Commission would satisfy the public; he was "firmly persuaded that the present settlement can settle nothing, that the traders who have gained trifling reductions will still be dissatisfied, and that the other traders, to whose shoulders the companies will attempt to transfer some portion of their loss, will be tenfold more so." His forecast was right. The Chambers of Agriculture, while admitting the advantages secured by the Board of Trade and the Joint Committee of Lords and Commons,[1] "cannot ignore the fact that in some important respects the settlement arrived at is far from satisfactory. This is specially the case as

[1] Thus shortly summarised:—"The codification and simplification of the charging powers of railway companies, so that any trader may readily discover the maximum rates which he can be legally charged. The positive prohibition of preferential rates for or preferential treatment of foreign merchandise. The extension of the powers of the Railway Commission. The strict limitation of charges for station terminals, which otherwise (under the decision of the Court of Appeal) were practically unlimited over a large part of the railway system of the country. The prohibition of charges for terminal services unless actually performed, and the recognition of the right of the trader, under certain conditions, to perform such services himself. The exhaustive classification of merchandise—2,327 articles appearing therein instead of 1,391 as proposed by the railway companies—and the provision that unenumerated articles are to be charged at Class 3 rates instead of at Class 5 rates as heretofore. The legal obligation placed for the first time upon the railway companies to carry milk and other perishable merchandise by passenger train, and the settlement of maxima for its conveyance. The legalisation of truck rates for animals. The right of all traders to have reasonable through rates fixed. Your committee cannot refrain from drawing prominent attention to the fact that the original proposals made by the railway companies were very greatly reduced as a result of their examination, firstly, by the Board of Trade, and, secondly, by the Joint Committee. This substantially confirms the view taken by your committee that the powers for which the railway companies asked were exorbitant and unreasonable." (Report of the Railway Rates Committee of the Chambers of Agriculture. Read November 3rd, 1891.)

regards the rates chargeable in class C, under which the grain of the country is carried, and the powers as to station terminals conceded universally to all railway companies, notwithstanding that over a great part of the railway system no such charges have hitherto been authorised. The effect of the addition of the same sum for terminals, whatever the length of the lead, combined with the principle of diminishing rates for increasing distances, causes the maxima which have been sanctioned to be practically no protection whatever to short-distance traffic, which is the class of traffic most urgently requiring protection."

Hitherto the railways have given free passes to the dealers, drovers, grooms who had charge of live-stock. In future they will be charged full fare, to recoup the reductions in railway rates. It applies to all railways in Great Britain and Ireland, and shows how well the companies can agree if they wish.

In the Act of 1888 a proviso was passed that there should be no preference of foreign over home produce. Yet the Report of the Railway Rates Committee of the Central Chamber of Agriculture (April 5th, 1892), says: "Your committee desire to draw special attention to the fact that, notwithstanding the provisions of the Act of 1888, they have received reliable information that instances continue to exist of preferential charges in favour of foreign produce."

And what say the traders? At a meeting of the Mansion House Association on Railway Rates, on the 21st July, 1891, resolutions were passed which while recognising "its partial success in defending the trading and agricultural classes against the extravagant proposals of the railway companies," yet objected to the new powers of charge given to the companies "as likely to be injurious to the traders upon short-distance traffic, and at all points where

no effective competition exists." "The Association, however, declines to accept the Bills in their present form as affording even a temporary settlement as between the railway companies and the traders, and in the event of their becoming law will continue to agitate for further legislation in the interest of traders"; and further, "that in view of the danger which exists that the railway companies, availing themselves of their new and increased powers, may impose still heavier burdens upon the trading and agricultural classes, this Association will continue to watch carefully the further development of the railway rates question, and to take such further steps therein as may be from time to time desirable in the interests of the trading and agricultural community." They have decided to make their organisation permanent. It is not peace, but an armed truce, that will give trouble to some future president of the Board of Trade.

Thus the settlement, the result of years of agitation, followed by an Act of Parliament, then by an exhaustive inquiry before the Board of Trade, then by another before a Joint Committee of both Houses, and finaliy hustled through Parliament in the expiring days of the Session of 1891, settled little except a better uniform classification and a codification of the powers of the various companies. Some day another solution of the problem will be found, and it should be one that will put the control of the railways and the public interest on the same instead of opposing sides.

A national system of railway traffic based on the principles that govern letters, parcels, and telegraphs, a system that had not to consult the interests of shareholders and railway boards, would be plain, simple, and intelligible.

If English railways have suffered from the system of company ownership, what is to be said of those of

Ireland, where so many other causes have contributed to depress them? According to Mr. Charles Waring, in 1885 there were 47 companies, of which 30 paid no dividend on ordinary shares, and 5 paid less than 3 per cent., while 19 Irish companies paid no dividend even on preference shares, and were hopelessly insolvent, and the returns of 1891 do not seem to look much better. Wasteful administration, high charges for little work, and, as the shareholders cannot spare anything for improvements out of their small dividends, deficient rolling stock and general inefficiency are the rule.

In the recent inquiry (1889-90) one witness after another gave evidence of the shortcomings of the Irish railways. Throughout Ireland there was the strongest complaint of the inadequacy of station accommodation, especially for cattle, which lay about in the road waiting for wagons. The high coal and mineral rates of the local lines check all enterprise, and are prohibitive to the industry of the country. It was cheaper to send cattle by road than by rail, cheaper to take coal from Scotland to a seaport than to get it ten miles inland, cheaper to carry goods to England, and have them re-shipped to Ireland at through English rates than to pay the local rates. Goods are often shipped from the eastern seaboard for Sligo and Ballina *viâ* Glasgow. "The rates between Belfast and Drogheda are as high as between Belfast and English towns." The high charges have injured the woollen, the flax, and the milling interests, "yet the new schedule proposed to give power to raise them from 40 to 70 per cent. A parcel travels 500 miles in England for half the price it costs for thirty miles in Ireland. Average passenger fares in England 8½d., Scotland 10½d., but in Ireland 1s. 3½d. Such are some of the items in the indictment of the Irish railways.

Yet the total 2,500 miles of Irish railway have to look after them 303 directors, 97 secretaries, engineers,

and managers, and about 60 auditors and solicitors![1]

In Ireland, as in England, there is a tendency to joint working arrangements. Many of the railways are worked by the four great companies—the Belfast and Northern Counties, the Great Northern, the Midland and Great Western, and the Great Southern and Western. These arrangements are not only advantageous in themselves, but render evolution from the conflicting conditions of separate management to unification and entire acquisition by the State more easy. Even unprofitable short lines, when thus absorbed in larger systems, benefit the whole. There are still several lines with two or three

[1] In his separate report, in 1867, the Hon. W. Monsell remarked that three intelligent business men sitting in Dublin would do the business better than the (then) 430 directors of the 56 lines (most of them with a separate Board); further, that the lines seemed to have no tendency to amalgamation. Of 35 companies he said two were bankrupt, two at a standstill, six had paid no dividend for years on some part of their preference stock, ten had paid no dividend on their ordinary shares, seven paid a less percentage than the funds (two of these less than 1 per cent.), &c. Mr. Monsell said of the railways in Ireland, and it is more widely applicable, "The main avenues throughout the country have ceased to be the property of the State, and are handed over to the absolute possession of monopolists placed beyond the reach of rivalry or control." A high authority attributed to their divided management the result "that the rates are very high, the trains very few, and the remuneration of the proprietors very small." The Commission appointed in October, 1867, on the condition of the Irish railways, and on the probable effect of the adoption of the Belgian scale of rates, reported that £32,000 per annum would be saved in management, £82,000 in interest, and a loss be incurred of a little over half a million in receipts. But in 11 years increased traffic would pay all charges, and leave a balance of £50,000 after payment of working charges, cost of increased accommodation, additional rolling stock, and interest on all capital previously advanced. ("State Purchase of Irish Railways," by Charles Waring, *Fortnightly Review*, December, 1886. Royal Commission on Railways, 1865, p. 25.)

boards which would be better with one. Numerous instances could be cited where want of connection greatly interferes with the utility of the lines.[1] Some of them end at inconvenient points, and one is tempted to ask, Why terminate there? Want of system is often surpassed by want of punctuality, great companies timing their trains so as to arrive too late at the junctions for the departure of connecting trains on other lines. The public convenience counts for nothing.

According to the Railway Returns for 1891, the Light Railways, authorised under the Tramways (Ireland) Acts 1860 to 1883, represented a total capital of £1,179,216, of which over a million is guaranteed at 4 and 5 per cent. An Act was passed in 1883 (46 and 47 Vic. c. 43) based on the principle of enabling the baronies to guarantee to companies a dividend not exceeding 5 per cent. on the share capital, the Government undertaking to recoup the baronies to the extent of 2 per cent. if needful. The companies were to work and maintain the lines. The result was that about 120 proposals were made, of which 17 were accepted, and about 276 miles

[1] From Downpatrick to Dublin one must travel by way of Belfast. Waterford and Wexford are joined by a railway which meanders north to Kilkenny; and Sligo and Ballina, two of the most important towns in the north-west of Ireland, are connected, so far as railways are concerned, by a line which travels inland to Mullingar, a roundabout of 160 miles. The new Government line from Claremorris to Collooney will reduce this detour by 100 miles. The following are examples of this want of completion: In Londonderry—Draperstown and Dungiven. In Down—Ballynahinch, Ballyroney, and Newcastle. In Monaghan—Carrickmacross. In Cavan—Kingscourt, Cootehill, and Killeshandra. In Meath—Athboy and Oldcastle. In Queen's County—Mountmellick. In Wicklow—Shillelagh. In Carlow—Tullow. In Wexford—New Ross. In Cork—Coachford, Macroom, and Newmarket. In King's County—Banagher. In Galway—Portumna and Loughrea. In Mayo—Ballaghaderreen.

constructed at a cost of £1,260,000. Some of the lines have paid their working expenses, and something towards the guarantee dividend.

The Light Railways Acts of 1889 and 1890[1] have not been sufficiently long in operation to show their full influence, but, so far as is known, they have been even still more successful, and proved most useful on the failure of the potato crop in 1890 and 1891 even as a labour test, without reference to the larger

[1] Railways authorised under the Light Railways (Ireland) Act, 1889, The Railways (Ireland) Act, 1890, and the Transfer of Railways (Ireland) Act, 1890 :—

County.	Description.				Supply of Funds.		
	Name of Line.	Gauge.	Length.	Probable cost without Rolling Stock.	By Government Grant.	By Local Guarantee.	By Working Company.
			Miles.	£	£	£	£
Donegal.	Donegal and Killybegs.	3 feet.	18¾	108,000 (Rolling Stock, 9,500.)	115,600	1,000	Nil.
	Stranorlar and Glenties.	3 feet.	24½	102,000 (Rolling Stock, 10,000.)	116,000	1,000	Nil.
					Probable Grant,		
Mayo.	Achill Extension.	5 ft. 3 in.	8¼	59,000	59,000	—	—
	Westport and Mulbranny.	5 ft. 3 in.	18	170,000	131,400	—	Balance of Cost.
	Ballina and Killala.	5 ft. 3 in.	8	56,000	44,000	—	do.
Galway.	Galway and Clifden.	5 ft. 3 in.	48¼	300,000	264,600	—	do.
Kerry.	Headford and Kenmare.	5 ft. 3 in.	19¾	102,000	50,000	60 000	do.
	Killorglin and Valentia.	5 ft. 3 in.	26¾	200,000	85,000	70,000	do.
Cork.	Baltimore Extension.	5 ft 3 in.	7⅞	57,000	56,700	—	Nil.
	Bantry Bay Extension.	5 ft. 3 in.	1¾	30,000	15,000	—	Balance of Cost.
Down.	Downpatrick & Ardglass.	5 ft. 3 in.	8	50,000	30,000	17,000	do.
				1,253,500	967,300		

questions of Irish railways.[1] From this point of view alone they would justify their whole cost. Assistance hitherto given to relieve ever-recurring Irish distress has been simply an instrument of demoralisation. Relief works were of a useless character, and no precaution was taken that a day's work was given for a day's pay. Outdoor relief given for the asking, so that the very unions became insolvent, seems to have been the ordinary conditions of the assistance to alleviate Irish distress. The relief afforded by what are known as the "Government railways" have had no such effects, because the work has been given to engineers and contractors, and loafing and shamming prevented. Although the work affords only temporary assistance, it has encouraged honest manual labour, and is good so far.

Apart from this benefit they have, however, had a very important influence in opening out and improving many hitherto neglected districts. The success achieved by these comparatively small enterprises shows what might have been accomplished by larger and more comprehensive action on the part of the State. A complete reorganisation of them, with low rates and fares, would have raised the value of land and labour, as is proved by the little that has been attempted. But the inveterate belief of our statesmen in company initiative and management resulted in the very inadequate measures of 1883, 1889, and 1890.

What was required was the extension and completion of the connections with the existing lines, but it was equally certain that neither the existing lines nor private enterprise would undertake this. The State alone could do it, but to this end it would have to take possession of the present lines, otherwise it would simply benefit their owners at the cost of the

[1] The labourers received 12s. per week wages, and the number employed reached at one time as many as 14,000—an example that might well be followed in England.

community. Though all these facts have been known for twenty-five years, no attempt has been made to introduce an improvement that would do more to raise the condition of Ireland than any other measure that could be devised.[1] Only the organisation of all the lines on a system will attain the best results. Neither local authorities nor companies can accomplish it. The Baronies already find their guarantees burdensome, and companies can only work for dividends. The subsidies recently given by the State almost amount to a free gift. The State seems to have profited in no way from the experience of former grants to railway companies. In 1847 the Government advanced £620,000 to the Great Southern and Western, the Waterford and Kilkenny, and the Dublin and Drogheda Railway. In 1849 £500,000 was advanced to the Midland Great Western. In 1866 £500,000 was granted to Irish railways to meet pressing liabilities. Altogether the advances amounted to over £4,000,000, not counting the £1,000,000 advanced under the Tramways Acts, and £1,000,000 to light railways, to which another vote of £600,000

[1] M. Baros, who introduced the "Zone" system into Hungary, thinks that it is eminently applicable to Ireland as a poor agricultural country with sparse population; of course assuming that its railways belonged to the State, without which it would be impracticable. In a paper read at the last meeting of the British Association, Mr. W. M. Acworth thought that Ireland might with great advantage copy the Hungarian example. He believed that a reduction of third-class fares from a penny to a halfpenny per mile in Ireland would have an immense effect upon the prosperity of that country. If not a single extra passenger travelled, it would only imply a sacrifice of £400,000 a year; but if five passengers then travelled for two now—and the Hungarian example warranted such a hypothesis—the railways would undoubtedly gain in revenue. Why, he asked, might not the Government guarantee the present income from passenger traffic on condition of these restrictions—reserving, of course, a corresponding representation in the management of the companies' affairs?

was added in 1893. There seems no very good reason why the State should make so large a present to private companies, when by their entire ownership it could retain the advantage and many greater ones. The function of a Government is to govern, not to subsidise private trading companies to do its proper work, whether that work lies in African colonies or home railways.

Even in 1836 and 1837 a Royal Commission recommended that certain Irish railways should be executed as public works with power to fix the rates of carriage. The proposals to this effect were adopted by the House of Commons, but nothing came of it. Hence small progress has been made with the Irish railway system, either in extension or improvement.[1]

In 1891 a deputation of representatives of the Irish railway companies waited upon the President of the Board of Trade. They stated that the "Irish companies were at a great disadvantage as compared with the English companies, as there were very few centres of industry in Ireland; most of them were ports, and consequently there was no great regular traffic from point to point. To make up for the loss of revenue accruing from the proposed new rates it would be necessary to have 38 per cent. increased traffic, and there was nothing to lead them to believe they would obtain that increase in the immediate future. Sir Michael Hicks-Beach did not think he could give them any greater powers of charge than had been given by Parliament to English railways.

[1] The following table gives the comparison for 10 years :—

	1881.	1891.
Length of Lines open (miles)	2,441 ...	2,863
Passengers	17,665,000 ...	21,395,353
Receipts from Passengers and Mails	£1,425,000 ...	£1,671,822
Receipts from Goods Traffic	£1,176,000 ...	£1,447,660
Total from both	£2,601,000 ...	£3,119,482
Average per mile	£1,066 ...	£1,089

It is not power to charge *higher* rates that is needed, but economy by the completion and organisation of the lines, the abolition of useless directors and officials, to admit of *lower* rates being charged, that is needed, and this is only practicable there, as elsewhere, by State ownership.

Neither the Government nor the deputation hinted at the most effectual method of dealing with the Irish railways so as to contribute to the improvement and development of Irish industry. When they do approach it, it will not be to settle the conditions as laid down by Sir G. Findlay for English railways, "the nature and extent of traffic, the pressure of competition either by water, by a rival railway route, or by other land carriage," "the commercial value of the commodity, and the rate it will bear, so as to admit of its being produced and sold in a competing market with a fair margin of profit," but it will simply have to consider what would reimburse the cost of conveyance, with no object but the advantage of the community. There are many lines that it would be very desirable should be made which could show little profit and would scarcely pay working expenses, but might be of the greatest advantage to their respective districts, but "existing companies would have little motive for making them, and will no doubt oppose vigorously any attempt of rival speculators to introduce independent lines into the heart of their system."[1]

An Irish national system of railways would give the Government a better organised control of the country, a central point at every station for postal and telegraphic purposes, and enable it to develop its resources to a degree not yet witnessed.

Were Ireland covered with a complete network of cheap railways, carrying goods and passengers at low

[1] Report, 1872, p. xci.

rates, the country would have a chance of growth. Private enterprise will not undertake railways over barren tracts—ofttimes of stony, exhausted soil, and with a sparse population, ignorant of agriculture, living in misery from hand to mouth. But were the railways combined, the cost of administration economised as it might be, they would, as they have done in Belgium and elsewhere, develop her agricultural resources, render her bays, which teem with fish—now treated sometimes as manure for want of cheap transit —available, and open out her quarries of granite and marble, her mines of iron ore, coal, and slate. In a word, they would do more for Ireland's progress in one generation than has hitherto been attained in her whole history.

The poverty of the inhabitants of the North-West Highlands and islands of Scotland has led to proposals to construct several short lines of railway for the improvement of the agriculture and fisheries of that part of the country. A Commission appointed by the Treasury has reported in favour of some of them, one on condition of a State guarantee of 3 per cent. for 25 years, the Highland Railway Company undertaking the working on these terms. Its directors have received an intimation that the Government has resolved to contribute a sum of £45,000 towards the cost of extending the Highland line from Stromeferry to Kyle, and constructing suitable piers. For other lines the Commission recommend a total outlay of over £600,000, more than a third of such sum being met by a State guarantee and about a fourth by a direct grant. The Commissioners admit that none of these projects can be justified on commercial grounds, as bringing a direct financial return. But, as Sir Edwin Chadwick said, a road which is a total loss as an enterprise for profit is yet profitable to the general or the local public. Waterloo Bridge ruined its shareholders, but improved the value of the property on the

south side £30,000 or £40,000 a year. The welfare of whole districts, the distribution of many important industries, agricultural and manufacturing, are determined by the conditions and facilities of transit, and involve wider considerations than can be expected from merely private companies.

Knowing what we do of Commissions and of the results of their reports and recommendations, it will be well for the inhabitants of the Highlands if they possess much patience.

CHAPTER IV.

COMPETITION OR AMALGAMATION.

"The history of civilisation is a record of the attempts which the human race has made to escape from this position (of constant conflict) . . and of all the successive shapes that Society has taken that most nearly approaches perfection in which war of individual against individual is most strictly limited."—HUXLEY.

As in America, so here, the advantage of competition has often been a plea for additional railway accommodation in districts wholly or partially supplied. It is not easy to recall instances where the public obtained the promised benefit. Once obtained, the needless line did not compete, but its owners rather sought to prevent competition either by amalgamation or working arrangements, and the public saw with astonishment numerous lines consolidated into larger systems. Alarm was expressed at these monopolies becoming more powerful than ever. The Select Committee of 1846 agreed that there was ground for alarm, but recognised that "it enabled the companies to conduct their operations with less expense to themselves, and consequently with diminished charges to the public; it conduces to better arrangements, and thereby increased safety to life and property. It enables companies conjointly to provide that increase of accommodation for the public at their terminal stations which many of them could not separately afford."

As a check upon amalgamation, it was recommended that as a condition "the rates and tolls of the amalgamated companies should be subject to

revision" (*i.e.*, reduction). This proposal caused some useful schemes of amalgamation to be withdrawn. Active railway competition would ruin the companies, and would not benefit the public. The lines would deteriorate, and extension be discouraged. Dividends might then be wiped out. This is not railway policy. In the recent inquiry it was admitted by the late Sir G. Findlay that all the companies were banded together to maintain rates, and that no company could reduce a rate without the consent of all the others serving the district. If a company would reduce a rate, the others refused consent, though not interested in the particular rate, lest it might compete with some other traffic in which they were interested.

If competition as a regulative force of these private monopolies must be dismissed as not operative, or at least inadequate, what is left? If company control of the principal roads of the nation is not satisfactory, what is the alternative? Mr. S. Laing, chairman of the Brighton Railway, candidly admits that "It is not right that such important interests should be left entirely to the good-will and pleasure of a small number of directors," and "that the system works with a good deal of friction and waste, both of money, time, and energy, which ought to be devoted to the details of management."[1] He says that the one security the public have consists of the limit of the maximum rates, which if enforced would annihilate more than half the tonnage. The other security is the Act of 1854, providing that like rates shall be charged under like circumstances, which, though valuable, "is equally inadequate as a means of providing for a fair adjustment of charge between different districts and interests, as the circumstances are hardly ever sufficiently alike," and that the result

[1] "Our Railway System," by S. Laing. (*Fortnightly Review*, April, 1886.)

of all this is the unpopularity of railways as uncontrolled monopolies. Mr. Laing's remedy was to make the Board of Trade truly supreme—the department "for exercising general arbitration between the railway companies and the public." He would entrust this Board of control with the power even of authorising new lines where required, which *might* pay if affiliated with existing companies, and freed from the charges now inflicted in Parliamentary contests. Its main function would be arbitration "of a very wide and stringent character between railways and public bodies."

The arbitration that Mr. Laing recommended has just been tried on a large scale, and its results may be found in two reports—the one issued by the Board of Trade,[1] and the subsequent one of the Joint Select Committee on railway rates and charges.[2] This was followed by the legislation of 1891 with nine of the principal railways, and that of 1892 with the remainder. The trader must perforce accept what the Joint Committee gave him, and if the companies exceed their powers an appeal to the Board of Trade is given him; but if this should not prove satisfactory, he may still have the privilege of fighting, before the Railway Commissioners, with a body which can spend any amount of shareholders' money, can engage the most expensive counsel, and obtain a result where success or failure equally spell loss to him.

The idea that the rates for carriage of goods might be left to the competition of companies fell to the ground when it was found that the companies did not compete, although many of them obtained their Acts upon that supposition. Then it dawned on the public mind that, if competition did not regulate the rates, some other power should. The identity of charges by the different companies for the same service shows that

[1] Railway and Canal Traffic (1888) Report, August 16th, 1890, No. 414.

[2] August 1st, 1891, No. 394.

these were wide awake to the folly of cutting rates though such as a proper system would render possible.

The whole transaction is a wonderful anomaly in the ordinary doctrines of economics. The wild theory of the "collectivists" that the State should regulate profits and wages, at least involves that the nation should *own* the capital. Yet in this railway question, though the State does not own the capital, it is practically asked to fix, not only the reward to be derived from nine hundred millions of private capital, but of a large sum in the price and profits of the commodities carried, and in which the cost of carriage forms a more or less important item. Not a ton of iron or coals, not a sack of flour, bushel of fruit, or basket of fish, nor any of the whole (nearly) three hundred millions of tons carried, but is taxed not at the will of the individual trader, nor at the will of the State, which only fixed the maximum for goods, but at that of the companies (or rather their managers), who, it is admitted, charge "as much as could be got," without reference to the cost to the company of performing the service,[1] and therefore cannot be left uncontrolled. It seems preposterous to fix a rate of charge not on the basis of the cost of the service rendered, but on an arbitrary classification of commodities according to their more or less expensiveness, practically amounting to regulations of a protectionist and sumptuary character against the public. On the other hand, even if the "higgling of the market" were the best means of settling rates, we are without it here. Instead thereof we have them settled by rival barristers before a Committee of Lords and Commons, who know little about the matter, aided by a chairman who silences the contesting parties by "splitting the difference," but more often giving everything to the railway companies.

[1] Report of Select Committee of 1882.

That the rival interests of the public and companies can be satisfactorily adjusted in this manner is incredible. What it has done for the traders we now know.

No theory of railway management is tenable which regards railways as private property, to be carried on solely with reference to the gains of the shareholders. As the public roads of the country, they should be worked in the sole interest of the nation, with carriages and fares as low as possible consistent with efficiency and the development of industry. But even from the shareholder's point of view, it is surprising enough that, with nearly three times the receipts and five times the passengers of thirty years ago, dividends have not increased.

Mr. Acworth, quoting the critics of the present system, admits "It has been mournfully acknowledged over and over again, by railway men themselves, that the competition in express trains—say, between London and Manchester, or Manchester and Liverpool—is extravagant. A third of the number of trains could carry the whole of the traffic, and even then give a service sufficiently frequent to deprive the public of any right to grumble." He admits that this statement has "undoubtedly in it a considerable element of truth," but says it is impossible to have the advantage of competition, that efficiency and progress cannot be secured under any system of monopoly, and that competition is necessary to prevent stagnation.[1] But do what we will, the railways are and must remain a monopoly, and practically many of the companies wisely restrict competition where it is possible. By amalgamation, by working arrangements, by pooling receipts, by the organisation of the clearing house, and in other ways, they avoid in some degree, as regards themselves, the effects of competition. If the shareholders exercised any real control, they would soon

[1] Acworth on Railways, p. 162.

close all expensive rivalry—the cost of which falls first on themselves, and much of it ultimately on the public. In admitting that the public (*i.e.*, the Board of Trade) and "the law courts have a right to supervise the operations (of the railways) in a way that is neither possible nor desirable with a private enterprise," the case for competition is abandoned. It is an admission that State control is needed, and the extent of that control is a question of expediency. 'The public (*i.e.*, the State) has," says Mr. Acworth, a natural right to overhaul the railway companies' accounts." "The managers have moved a long distance away from their former untenable position, that railways are ordinary private commercial undertakings."[1] And quoting Gustave Cohn, as to the difficulty of comparing English freight tariffs with Continental ones, he adds that this writer, who has given years of his life to the study of our English system, and is no partisan, is "convinced that State ownership of railways will be found in the long run the only possible policy."

But though the railway companies often agree, they sometimes act on an opposite policy. Take the case of the three railways, the Chatham, the London, Brighton and South Coast, and the South Eastern Railways. As Mr. Watherston said, "If reason guided the shareholders instead of prejudice, and in most instances senseless apathy, these lines ought to have united long ago. The lines of two of the companies serve the same district; the trains, each usually not one-half filled, run side by side. As there are two sets of trains where one might do, so there are two boards of directors, two complete administrative staffs, with secretaries, managers, engineers, architects, and so forth. Who pays for all this? Simply the public." "It is surprising that the shareholders of another

[1] Acworth on Railways, p. 179.

company running alongside the South Eastern—the unfortunate London, Chatham and Dover—should not insist upon amalgamation. It has never once returned a dividend, and probably never will as long as it is merely private property, managed as at present."[1]

A Bill was actually passed by the Committees of both Houses of Parliament sanctioning the amalgamation of the three lines. Unreasonable terms were asked from the South Eastern, and the Bill was withdrawn. A quarter of a century has since elapsed, and the public have lost all the advantages named by Sir E. Watkin during that long period. The loss to the shareholders by separate working of the

[1] "Our Railways, should They be National or Private Property?" (p. 26), by E. J. Watherston, 1879.

Sir Edward Watkin, M.P., chairman of the South Eastern Railway, writing to the *Times* in 1868, said: "The main interest of the public in travelling consists in the regularity, speed, safety, and comfort with which it is conducted. It is the interest of the public to be well served by well-appointed trains, run upon a well-maintained road, to accomplish which fair remuneration is an essential condition. . . . You were good enough to criticise my previous assertion that the fusion of the three companies would confer enormous advantages upon the public. If to give the use to travellers over 700 miles of railway of all the metropolitan stations of the three lines, including Charing Cross, Cannon Street, Victoria, and Ludgate, from which the separate sections are now debarred; if to enable every passenger, where there are two routes, to go or return by each, thus practically giving him the choice of times of arrival and departure; if to restore the credit and improve the working of the Brighton and Chatham is nothing, then I am wrong, and the Bill ought not to pass." Only recently Mr. Forbes, chairman of the London, Chatham and Dover, said: "Although they were satisfied that the fusion or the common working of these two companies would be of the greatest convenience to the public, enabling them to study the traffic questions which were now impossible of adjustment, and although they were sure that the cry for more accommodation and lower rates was much more likely to be realised under efficient and economical instead of divided management, yet the temper of Parliament was such at present that it would be simple folly to go before them to ask for their approval either for amalgamation or a working union."

three lines was then estimated by Sir E. Watkin at £100,000 per annum, but Mr. Spens, who has lately revived the question, estimates that the present saving would be over £200,000 per annum on the Chatham and the South Eastern lines alone. Writing to the *Times* (24th January, 1891), Mr. Francis K. Munton, on the competition between the South Eastern and the Chatham Railways, said that—

"Having been obliged to go twice a week to Dover for eighteen months at a stretch, I over and over again observed the state of things there which showed that if the two companies would combine one joint train to some agreed point near London, portions being taken thence to Cannon Street and Holborn respectively, both companies' dividends would be appreciably increased. I contend that at least for six months out of twelve two half-loaded express trains at the same hour tearing through the country from Dover to Charing Cross and Victoria (a mile or so apart from each other in London) is an unparalleled waste of power, which two companies peacefully inclined should try to terminate."

The Continental traffic of the two lines, taken by itself, costs more than they receive. It forms a seventh of the whole mileage, and the receipts are about a twelfth, while one efficient service would amply pay for itself. Mr. J. Pope says :—

"The passenger traffic between London and Paris by the Short Sea Route ought to be most profitable to the companies on both sides of the Channel who enjoy a monopoly of it. On the French side it is so, for, in connection with that traffic, the Northern of France finds it necessary to run only one train where we run two. The result to the original shareholders of that company is that they are getting about 15 per cent. for their money, and their shares have increased in value nearly fourfold."—*Times*, October 18th, 1892.

Although there is no dividend on the one line on its ordinary stock, and a declining dividend on the other, one of the two companies will not consent to amalgamation, and the shareholders of both are either indifferent or powerless. The other competitor, the Brighton line, ought to be amalgamated with the other

two lines, if the public interest alone were regarded. This line actually pays the South Eastern £24,500 as compensation *not* to run to Eastbourne. Some scheme of co-operation between the Chatham and the South Eastern to lessen *competition* will probably be adopted, but this is not all the public ask for, which is that access to the south-eastern seaside resorts may be greatly improved as well as over the whole district, and at cheaper fares, instead of double sets of trains running nearly at the same hour.[1]

No amalgamation of the companies could treat the public worse than that just described. At the same time, amalgamation ought to be accompanied by protection against the railways in the south-east of

[1] In a letter to the *Times* (November 28th, 1892) Lord Brassey objects to the amalgamation of the Chatham and South Eastern on the ground that, "unchecked by competition, railway companies are under strong temptation to avail themselves to their utmost of the advantages of their monopoly." It is difficult to see where the check comes in, seeing that with the existing competition he makes the following charges against the South Eastern :—

"These tendencies have been exhibited in a marked degree in the case of the South Eastern Railway Company. It has been the avowed policy of the board to charge fares largely in excess of those paid on the railways north of London, where the public have the full benefits of competition. The policy has been defended on the ground that the district served by the company is aristocratic, and favours a line of action designed to discourage all but the comparatively wealthy from frequently travelling on the South Eastern system.

"The growth of traffic on the South Eastern Railway has been checked not only by the high fares charged, but by the extreme inconvenience of the access to London. The time occupied between New Cross and Charing Cross is rarely less than twenty-five minutes." "Even now it would be wise to abandon the use of Cannon Street as a railway station. If a decision in this sense is not taken, all trains should divide at New Cross into a West End and an East End portion. I have estimated the time from New Cross at twenty-five minutes. In foggy and thick weather, and from other causes, a delay of an hour is of no infrequent occurrence."

England, for none treat their customers worse. The South Eastern has higher fares than any other English railway, and should be brought to their level. All of them give worse third-class carriages than the northern railways, and fewer trains containing them, the Brighton being the worst. Express fares should be abolished. A good deal might be done for the public by these railways if amalgamated, and their profits be none the less. An Act in 1868 considerably raised the Brighton tariffs; it earns splendid dividends, and should do more for the public which pays them.

The great evil of the now defunct broad gauge was that it interfered with otherwise joint working. It could neither give nor receive traffic from other lines without transfer of passengers and goods. Now an express train can run from Torquay to Liverpool, and continuous service becomes possible.

As with the lines south of London, so with three competing Scotch lines. At last two of them, the Caledonian and the North British, have made a treaty of peace for twenty-five years. At one half-yearly meeting of the former company (March 22nd, 1892) its chairman, Mr. J. C. Bolton, M.P., said :—"The two companies had been constantly at war, and this had led to an enormous expenditure of capital, which, if it much longer continued, must have resulted in serious disaster to one or both. The agreement opened the door to arrangements being made without additional cost—probably at some saving in cost—to develop trade to the utmost by interchanging train facilities, by opening junctions for the exchange of traffic, by making return tickets issued for one line available for return over the other, as was partially done already, by making coast tickets —rail and steamboat—issued for one route available for both lines, and by extending to traders and season-ticket holders the privilege of travelling by either line." He also indicated a probable reduction of fares.

The chairman of the North British line (the Marquis of Tweeddale) said that the saving of parliamentary expenses alone in the first half of 1892 would be nearly £40,000! What a satire upon our railway system it is that these reasonable proposals should arouse the hostility of the Scotch traders, who, dreading the friendship between the belligerents more than their enmity, threatened to boycott both, and transfer their traffic to the Glasgow and South Western line—which was incorrectly reported to be contemplating a similar agreement with the Midland line. Still worse, only two years ago, when the North British and the Glasgow and North Western railways proposed to amalgamate, the Lords Committee rejected the Bill without even hearing its opponents!

Similarly it was proposed, in order to avoid the opposition of the Great Northern to the new line to London of the Manchester and Sheffield Company, to have a mutual interchange of running powers, through rates, station accommodation, and conveyance of through traffic, by which the integrity of the through service of trains between the systems of the two companies would be maintained, and the fullest facilities to the public for the interchange of all classes of traffic on and over the railways of the two companies be secured. This sensible arrangement was for some reason abandoned, but may yet prevail. The South Eastern promoted the new line, and took power to subscribe to its capital, in the contemplation of a full and complete traffic arrangement between the two companies, by which the South Eastern would obtain a direct connection with the great manufacturing towns in the Midland and Northern counties. The new line may lessen dividends of the lines connecting London with the same places as itself, even though they may all agree to raise rates and fares; but this is the penalty of sinking further

capital to do what existing lines partly do already. So, too, the projected Lancashire, Derbyshire and East Coast Railway, to cost nearly eight millions, founds its anticipations of profit very much on its alliance with the Great Eastern and Great Northern Railways, which will doubtless equally benefit through their improved connections and working arrangements.

Sir G. Findlay recommended the companies to prevent the continuous fall of dividends, and to protect themselves against further losses. He said: "The companies, if they are wise, will achieve this object by some kind of combination amongst themselves by which excessive competition may be obviated, and two or more companies carrying between common points may be enabled to reduce their train mileage, to curtail the running of unprofitable trains, and a great deal of unnecessary expenditure, and to keep the speed of the trains within reasonable limits, so as, without lessening the accommodation offered to the public, to preserve conditions under which the business of carrying passengers may again be conducted with a fair margin of profit to those whose capital is engaged in it."[1] Similar views were supported years

[1] The Board of the Grand Trunk Railway Company of Canada are hoping to secure economies by consolidation now that there is no longer any necessity for further extensions. The way has been prepared for promoting in the Canadian Parliament legislation by means of which the whole of the railways of the Grand Trunk system in Canada may be incorporated into one undertaking, and the divisions in the United States may be dealt with in a similar manner. But not only does the Grand Trunk propose to consolidate its own lines, but proposes to work more in harmony with the Canadian Pacific than it has hitherto done. Instead of cutting rates against each other they have agreed to maintain rates, and will discharge any agent breaking the agreement. The New York Central and competing lines have found the rate-cutting process so ruinous that they have just agreed (November, 1892) to establish a pool and equalise receipts. The adjustment of the percentage of receipts to be allotted to each line which is a party

ago by Lord Colville on behalf of the Great Northern, by Sir W. M. Thompson on behalf of the Midland, and recently by its present chairman, Mr. Paget, but jealousy prevents the adoption of more economical arrangements. The working arrangement between the Great Northern and the Metropolitan greatly benefited both, particularly the latter. The reduction in the hours of labour, and the increased cost in other ways, will do something in forcing a more economical service, but so long as the companies are separate corporations very great reforms will not be attempted. The companies must pay the penalty for the error committed in the formation of the lines—an error the consequences of which they now seek to place upon the shoulders of the public. In 1867 Sir Rowland Hill said, "The traffic, which would be ample for affording a reasonable profit for one line, is often quite insufficient for two." Instead of organising the railways in their own and the general interest, the Government seems to have thought it to be its sole duty "to keep the ring," to see fair play between this town and that landowner, in undoubting faith that competition would do all that was needed.

A fruitful cause of loss is the multiplication of unnecessary trains, which a universal amalgamation would remedy. In a letter by Mr. R. W. Giles (*Times* of 17th September, 1892) he pointed out "that competition which increases every item of working expense makes itself especially felt in a wasteful increase of train mileage," particularly in

to the agreement is to be left to the Pool Commissioner. Any railroad dissatisfied with the adjustment may appeal to the Chairman of the Western Traffic Association, who nominates the arbitrator. So, too, with some of the South American railways, competition does not pay, and the Interoceanic Railway of Mexico, the Mexican, the Central and the National Railways have recently made an agreement to avoid it, and to charge remunerative rates.

passenger traffic. From a table he constructed he showed that there was a close inverse relation between the ratios of train mileage and the ratios of train mileage receipts—that is, between diminished profits and competition.[1]

[1] Mr. Giles takes the Great Western as his standard of comparison because it runs the fewest trains (except the southern lines) per mile of railway in proportion to its mileage traffic, and is least exposed to competition. The higher receipts per train mile on the Southern lines is largely due to the metropolitan traffic, with fuller train loads—"omnibus traffic," in fact.

—	Receipts per Mile of Railway.	Train Miles per Mile of Railway.	Relative Rate of Train Mileage.	Receipts per Train Mile.	
	£			*s.*	*d.*
North Eastern	1,135	6,922	117·56	3	3·36
Great Western	1,344	6,973	100·00	3	10·26
Manchester, Sheffield and Lincolnshire	1,354	8,660	123·27	3	1·53
Midland	1,549	11,146	138·68	2	9·36
Great Northern	1,695	11,830	134·52	2	10·38
Great Eastern	1,724	9,352	104·55	3	8·25
London and North Western	2,017	11,514	110·02	3	6·04
London and South Western	2,330	11,206	92·70	4	1·91
Lancashire and Yorkshire	2,999	18,981	121·99	3	2·31
South Eastern	3,508	14,880	81·70	4	8·57
London, Brighton and South Coast	3,806	17,279	87·61	4	4·86
London, Chatham and Dover	4,792	19,148	77·02	5	0·06

In a second letter to the *Times* (2nd January, 1893) Mr. Giles, referring to the competition between the Midland and the Great Northern, says :—"They increased the already disproportionate train service of England and Wales by nearly eight million miles at the average cost of £960,000, being considerably more than half the total increase on the train service of the year. Now what was the ostensible cause for this additional mileage at so great a cost? It will not be seriously contended that the trains were already so heavily laden that they could not carry the additional load put upon them by the increased traffic

He showed that the *passenger* receipts per train mile for England and Wales averaged 3s. 7¼d., representing an average freight of forty passengers, of whom four are first or second class, and that a large proportion of the passenger service is worked with much less than this average, while a train-load of coals or cattle returns an average of 5s. 10½d. per train mile, and asks why a human freight should return so much less? Let the companies "try to come to such an arrangement as will raise the passenger receipts to, say, 5s. per train mile. This would represent fifty-six passengers in the usual proportions of each class, less than the full load of a single carriage!" If this economical arrangement were carried out in the interest of the public—that is, for lower fares—instead of merely higher dividends, it would be exactly what is wanted. But it would only be practical under a complete organisation of the railway system, and then the economy in goods traffic would be found not less than with passengers.

The improvements effected in the railway system by the operations of the clearing-house illustrate the benefits of combination and the evils of the separate system. Before the clearing-house existed a passenger had to change carriages and take a fresh ticket, and merchandise had to be taken from one waggon to another at the point of junction. The clearing-house relieved the public of this "perfectly intolerable system," and while separate bodies continue to administer our iron highways its machinery is indispensable. But it necessitates the employment of an enormous staff at the London office. "All over the country, at every junction of two railways, the clearing-house has number-takers stationed, who record the number and description of every vehicle that passes a

of 1891, when it is stated that this would not have added one passenger to each passenger train load, and but a fraction more than a ton of goods to each goods train load."

junction going from one line to another."[1] As Mr. Arthur J. Williams said: "The whole of its vast and complicated system will become needless as soon as all the railways are vested in the State: for there will be no longer conflicting claims to decide, disputes to refer, or cross-accounts to settle. . . . . Part of the elaborate machinery of the clearing-house is devoted to the settlement of the rolling-stock account between the different railway companies. For this purpose the daily history of each carriage, waggon, tarpaulin, that passes off its own line on to a strange line has to be recorded. . . . . There is something painfully ludicrous in this imposing array of clerks engaged in posting up the history of carriages and tarpaulins. . . . . The necessity for keeping such records, the adjustment of demurrage accounts at the clearing office, the inconvenience and loss caused by the want of a constant supply of waggons, would cease as soon as the ownership of the rolling stock became one."[2]

The Act authorising the functions of the clearing-house in promoting the transmission of passengers, animals, minerals, and goods on different lines, says that they are to grant "the same or like facilities as if such lines had belonged to one company." This is precisely the condition of things which ownership by the State would produce. But in the latter case there would not be needed an Act and hundreds of regulations, nor two thousand clerks to determine the respective claims. In lieu thereof there would be a "statistical" service as on the French railways, which checks abuses and enforces economy.

The complications of the present railway system are hardly credible. When it was proposed that the companies should furnish a detailed statement of the

[1] "The Working and Management of an English Railway," by George Findlay, p. 217.

[2] "Appropriation of the Railways by the State" (p. 42), by Arthur John Williams (now M.P. for Glamorganshire).

actual rates charged, it was answered that they would amount to millions. The problem that lies before the Board of Trade, the companies, and the traders, to settle them under the new classification, and the new terminal rates, is enormous.[1] If all the railways were under one administration, acting in the interests of the public, the problem of rates and fares would be one of comparative simplicity. The millions of tickets required for passengers would be reduced to hundreds. Before the zone system was introduced into Hungary they required at Buda Pesth station 690 tickets, afterwards only 96, which by an ingenious contrivance will be reduced to a still smaller number.

It is unreasonable to expect a railway company, founded, like all companies, for private gain, to act as if it administered a trust on behalf of the public. With the State as owner it is the reverse. It has not to consider shareholders, or how to compete with a rival railway or canal, or the merits of long or short routes. If, as Professor Hadley says, the Continental Governments "are not occupied with the question how to lower rates, but how to keep the right proportion between existing rates," they at least have no motive to be other than fair to all concerned. They have only to regard the public. They may either lower rates, which is the proper course, or prefer that the nation should use its profit in reduced taxation.

The amalgamation of railways has been admittedly in the interest of the public, and they have been continually amalgamating.[2] As Sir Rowland Hill said :

[1] Mr. G. E. Paget, Chairman of the Midland Company, said, August 7th, 1891 : "The result of the inquiry would involve the examination of between fifteen and twenty million of rates, and their alteration where necessary."

[2] In 1871, out of the then-existing 15,376 miles of railway, 11,058 were owned or worked by only 15 companies ; the remaining 4,318 miles were in the hands of 91 companies. The North Eastern Railway had then absorbed 37 different

"All expectation of benefit to the public from competition on the respective lines has been baffled by the mere force of circumstances." To unite them under one control would be merely to carry amalgamation to its logical conclusion. The reasons that make for amalgamation confirm the necessity for the larger and more complete amalgamation involved in State ownership. Divided administration is waste of power, and loss to everybody. The carriage that carries one-third of its possible passengers, the train that draws 50 tons when it could carry just as well 300 tons, shows waste. The authorities agree that the proportion of dead weight greatly determines railway profit, that the cost of trucks full or only half full is much the same, that the one pays and the other does not. The Bogie truck in the United States carries 25 tons at hardly greater cost than the 10-ton truck here. Sir Edwin Chadwick estimated from the evidence of railway managers that the economy from unity of management would save 20 per cent. of the working expenses—by making two trucks do the work of three, and by the avoidance of such manifest waste as having three sets of carriages running one-third full from the same place to the same place at the same time." [1] Two railways entering a town mean two sets of offices, double staff, and a double plant for collecting goods. At Liverpool

companies, most of which, as local lines, would have found it impossible to pay, but answer very well as parts of one large system. Nor has the management been found to be worse, but the reverse.

[1] "Journal of Statistical Society, 1873" (p. 225), Mr. Charles Waring says that—"A penny added to or deducted from the passenger fares and tonnage rates would represent a difference to the public of £4,000,000."—"State Purchase of Railways," *Fortnightly Review*, June, 1886. Unity of management would represent many pennies.

Captain Laws, Manager of the Lancashire and Yorkshire lines in 1864, estimated the saving from unity of management at 24 per cent.

the Midland Company established a coal station, thus adding 3s. per ton to the cost. This advantage the other five companies could not permit, so each proceeded to erect its own stations and warehouses, thus adding their 3s. in turn. Having piled up an expenditure of millions on station accommodation, they claim "that as the accommodation has been provided for, somebody must pay for it. . . . Out of the vast cost incurred, for every penny which the companies have spent for the benefit of the trade, elevenpence has been spent unproductively."[1] Though the companies shun competition in rates and fares, they are not yet converted to the advantage which they and the public might derive from a complete fusion and consequent unity of management. They compete in what are called "facilities," because these do not enter into their agreements. They thus injure one another and do not greatly benefit the public. The effect of the rise in wages and reduction in hours of railway servants would be *nil* compared with the economy possible under a complete amalgamation of the railways, and would give them more than the advances they have recently made in rates under their new Acts. Amalgamation would render some railway boards unnecessary, and directors are not likely to give up fees and prestige by the "happy despatch" process.

These statements confirm those advanced over twenty years since by the advocates of national railways, but will have no effect until the companies are *compulsorily* absorbed in larger organisations.

Then there is the wider question of the extension and development of the railway system to districts whose entire welfare is contingent upon it. Branch railway and tramway lines in connection with the

[1] Messrs. Waghorn and Stevens' Report to the Traders' Conferences, page 53.

great trunk lines for the smaller towns, and for the improvement of agricultural districts, are needed, but, not offering any great temptation to investors, are not likely to be introduced. The State alone, acting for the nation, could undertake them. It alone is able to compel complete combination in the interests of unity and economy. As private undertakings no scheme of improvement that required time for its development, or temporary sacrifice of dividends, would be listened to. The half-million share and debenture holders scattered over the empire have mainly one present interest—the half-yearly dividend—to which all other conditions are subordinate. Compensate them for that, and the State may improve as much as it likes.

That the Board of Trade has done something to moderate these monopolies is undeniable. Reluctant companies have rivalled in procrastination the most veteran Government official in the art of "How not to do it." The general adoption of continuous brakes was long delayed until the companies were compelled, and then they waited patiently to learn which was the best. Then they were permitted to have two or three forms, instead of the best, a disadvantage when carriages with one kind have to work with those of another. The block system and the interlocking system were long delayed because of the expense. The system of coupling carriages leaves much to be desired, if human life is worth consideration. On the main trunk lines separate rails for passengers and for goods would be a great advantage for both, and practically some companies are adopting this view to a limited extent. The lapse of time and the unforeseen growth of the travelling public have rendered the accommodation in stations, platforms, &c., provided thirty or forty years ago often inadequate now for comfort and even for safety. But in the face of lessening dividends railway managers dare not provide it. A system which eliminated the shareholders

reorganised and combined the railways, with a more economical method of working, and which cared less for earnings than for efficiency, would render all improvements practicable.

The wonderful progress of our telegraphs would never have been attained if they had remained the property of private companies, and they furnish a parallel argument to the railway question. Unity of management in the hands of the State has demonstrated its benefits. Private companies seldom risk expenditure that may possibly prove unprofitable, and they are niggardly over even that which is necessary. Hundreds of places where telegraphic communication—and the same remarks apply to parcels delivery—is not remunerative would, in the hands of the companies, now be without these advantages. The State-owned railway can afford to risk experiments, and even incur loss, as did the Belgian State railways. But, as the Minister of Public Works stated in 1866, that deficiency speedily disappeared, and the lines have become a source of revenue. When the telegraphs were owned by companies, few extensions were made and development was checked. There was the usual talk about the superiority of private enterprise. The Post Office was once a private enterprise, and, as Sir Edwin Chadwick said, if it "were conducted in some hundred independent districts by trading companies, as private monopolies, for the sake of a trading profit, as communication by rail is now, we should hear the like platitudes about the excellence of private enterprise." When the telegraphs were taken by the State a uniform tariff was established, development commenced and has become more extended ever since, to the immense improvement of the newspaper press and the convenience of the public.[1]

[1] Telegraphs have often been referred to as a warning of the bad bargains the State makes. But, according to

In 1889 the business of the Submarine Telegraph Company was transferred to the Post Office, and the Government assumed the sole control of telegraphic communication with France, Germany, Italy, and the Netherlands. Did the public suffer by this transfer? No! On the contrary, the Post Office at once introduced a number of reforms, laid new lines, opened direct communication with many new stations, and in a very brief period remedied the numerous détours and frequent interruptions previously experienced. All this has been accompanied by reductions in the charges and a consequent considerable increase in the business.

Notwithstanding the lesson afforded by the State ownership of the telegraphs, the Government neglected the opportunity furnished it by a decision of the Courts of Law confirming its monopoly in the telephone. Instead of availing itself of this splendid opening to make a national system of telephonic communication in conjunction with, instead of in rivalry with its telegraphs, it dribbled its opportunity away in licences to private companies, to which the State is now compelled to make compensations and concessions, and we are to have a half-and-half system

Mr. Hammond Chubb, the case was that up to the end of 1872 "the telegraphs had cost £6,678,000, which at 3½ per cent. amounts to £217,000 per annum. But the income of the telegraphic companies, which they divided in profits among their shareholders, was over £350,000, therefore for £217,000 a year the Government had purchased an annual income of £350,000" (*Journal of Statistical Society*, 1873, p. 237). Be this as it may, the fact now stands that on an expenditure of £10,000,000 sterling (including £2,000,000 for extensions) and debiting the account from 1870 to 1891 with £6,405,721 for interest, there is a deficit of only £4,000,000. On a national service like this, however, no interest should be charged, any more than upon our army and navy expenditure, and in this case there would be a surplus profit of nearly £2,500,000. No interest is charged upon the outlay on a new post office, however great; it comes out of the annual income.

of State and company ownership. Even this small advance has been forced upon the State by the wretched inadequacy and high charges of the recent system, in consequence of which this highly commercial country occupies a worse position than any other in its telephonic arrangements.

As the *Times* said, "Thus has the department frittered away and made of no effect one of the most magnificent pieces of good fortune ever dispensed by the mysterious operation of English law."

The only hopeful thing is that the State will ultimately have to buy up the companies, and all the well "watered" stock.[1]

Note A.

At the very time when the British Parliament was discussing the inadequate proposals of the Government on telephonic communication, our second Secretary of Legation (Mr. Cunyngham Greene) at Brussels was preparing a report on its history and progress in Belgium, which throws a flood of light on the arguments which unhappily prevailed here. A few extracts will suffice :—

Up to the year 1883 the telephone service in Belgium was in the hands of private companies, and the uncertain character

[1] In France, since the private companies were transferred to the State, the tariff between Paris and Brussels has been reduced to half. Berlin has double the number of subscribers to the telephone compared with London. In Germany, Switzerland, and in Norway and Sweden, the telephone is fast becoming a medium of communication among small tradesmen and even among workmen. This, of course, can only be due to the adoption of low tariffs, and in this respect Switzerland probably leads the van. Throughout the Confederation the annual subscription is sixty-four shillings, every conversation beyond a maximum of eight hundred words being charged for at the rate of a halfpenny a word. This allows two or three conversations every day of the year at a charge per diem of a little more than twopence.

of the concessions granted by the State checked the free expansion of private enterprise.

Between 1880 and 1883 three separate telephone systems were in operation in Brussels, but, owing to competition, and the refusal of the companies who worked the lines to grant mutual subscriptions over the lines of their rivals, no great success was obtained by any of them.

Again, the companies not unnaturally show a tendency to "nurse" the more profitable portions of their systems, and, whereas the residents in the immediate vicinity of the central offices are adequately served, the ones who reside farther off complain that they do not fare so well. That this is the case is sufficiently proved by the fact that out of the 637 towns or villages comprised in the twelve districts, for the service of which the State has granted concessions, only 176 are supplied with telephonic apparatus, leaving the remaining 461—that is, over 70 per cent. of the whole—unprovided for.

This unequal partition of the advantages of the service, and the necessity for a reorganisation in the system, as adopted by the companies, for satisfying the needs of the public, has of late years stimulated the State to lay and work lines on its own account, and the experiment thus made has been most successful and encouraging.

Now the scheme which the Government have already tried on their own lines, and which they propose to extend to the whole country, is to mete it out into districts, and to establish a central office at any place or places in each district where there may be a demand for one. To borrow M. Banneux's (Director of the technical department of the State telegraph and telephones) own expression, "The State is something of a democrat, and follows its public about from place to place, planting a central office for its subscribers wherever they ask for one." In fact, instead of waiting to be pressed by the public into granting this boon, they are ready to meet the first indication of any desire, from however limited a community, for the establishment of a central office.

In reply to my inquiry how the Government could possibly afford to establish a central telephone office at such an insignificant fishing village as Middlekerk, for instance, M. Banneux explained to me that the whole secret consists in the fact that both the telephone and telegraph systems of the country are in the hands of the State. That, he said, is an absolute *sine quâ non* in any attempt to grapple successfully with the problem of remunerative enterprise in telephony. The Government having their telegraph wires all over the country, and their telegraph offices in every direction, there is nothing simpler for them than at any time to set up a central telephone office

at any place where there is already a local telegraph office. The wires are there, the building is there, the operators are there, their time being in most cases amply sufficient to attend to both telegraphic and telephonic duties, and the expense of supplying the additional instruments being insignificant.

There seems no reason to fear that the telephone will do any injury to the telegraphic service of the country ; each service is used as a rule by a different class of the public, and for different objects. Just as one man goes to his business in a cab, while another travels by omnibus, or a third by tramway or railway, so there appears to be room in the needs of every-day life for more than one form of rapid transmission of communications, and, judging by experience up till now, it is unlikely that the telephone will oust the telegraph out of the field, any more than the underground railway in London has displaced the omnibus or cab service of the metropolis. In order, however, to secure success in the working of both systems, it is essential that both the great services, the telegraph and the telephone, should be in one and the same hands. To quote M. Banneux's own words, "The telegraph and telephone services must be one great monopoly, and that monopoly must be in the hands of the State."

With the State as owner of both systems, the evils of multiple control would disappear, and the result would be not only a large increase of advantage to the public, but a great improvement in the revenues of the State itself.—*Report, No.* 229 *Foreign Office, April*, 1892.

CHAPTER V.

THE THIRD CLASS PASSENGER.

"The third class passenger down to 1845 had no legal status at all; many companies would not carry him at any price, others put him in an open goods truck, with movable seats placed across it, and charged him 1½d. a mile for the luxury, too. He was conveyed with other unclean animals by cattle trains, he was shunted about in his bufferless box for hours, and when at last he reached his destination it was to see a notice that 'the company's servants are strictly ordered not to porter for waggon passengers.' A delightful conveyance often used for third class traffic was known as a 'Stanhope.' It consisted of a box, about 18 feet long, divided into four compartments by two wooden bars crossing each other in the middle. The absence of seats, however, was the last 'straw'; travellers rebelled, and the Stanhopes were not long in use."—*Cornhill Magazine.*

IT is a singular thing that while public attention has been centred on the charges for goods traffic, the more important question of passenger traffic is neglected altogether. The one affects the price of commodities; the other is not only a money question, but concerns the health, comfort, and pleasure of over 900 millions of travellers.[1] The system of private companies has proved more objectionable with passenger than even with goods traffic, and the State has done less for passengers than for goods to secure to the public the advantages which the railways are capable of conferring. If the tailor or the

[1] Passengers return 4s. 1d., and goods 5s. 10d., per train mile; the average fare per passenger is 8¾d., and at 15 passengers to the ton, the result would be 10s. 2d. per ton of passengers, against 5s. 6d. per ton for goods, and the passengers load and unload themselves.

grocer do not serve you well, you can go to another; if they sell adulterated goods, you have your remedy in a co-operative store; but if the railway company treats you badly, you have no remedy; you may relieve your feelings by a letter to the *Times*, but you must submit and suffer. "No one," says the *Daily News*, "who had complaints to make of the want of accommodation at a railway station would think of writing to the Board of Trade. If he did so, some superior person would probably send him back a snub." To ensure one train a day at a penny per mile, and to prevent accidents, seem the sum of its duties.

The needless multiplication of lines, and of half-filled trains upon those lines, while it has brought little reward to shareholders, has not lessened, in proportion, the cost of transit of passengers and merchandise. The business to be done is overweighted with the capital employed to do it, just as in the London docks, where needless millions have been spent with ruinous results. The late Sir G. Findlay, the able manager of the London and North Western Railway, said that "between London and Liverpool, Manchester, Leeds, Edinburgh, Glasgow, Perth, or Aberdeen, and between Liverpool and Manchester, there are three rival routes; between London and most of the principal places in the West of England two routes; and so on more or less throughout the country. Thus, between all the principal towns there are running daily large numbers of express trains by the different routes, *very often at the same hours*, or nearly so, and in most cases *at the same* speed and fares." [1]

That a passenger can travel by two or three routes to the same places, at the same hours, at the same fare, is not a very obvious advantage compared with the cost of capital needlessly invested in sending

[1] "Journal of Society of Arts," February 14th, 1890.

30 trains, one-third filled, at high rates, instead of 10 at lower rates and convenient hours fairly filled.[1]

As if the three great lines from London to the North were not enough, the Manchester, Sheffield and Lincolnshire line will be pushed into London, to the injury of one of its finest districts, the compression of thousands of its population into narrower quarters already overcrowded, the noise of engine whistles, fog signals, and truck shunting—it seems hardly worth while to spend six and a half millions, besides enormous law costs, to substitute these blessings for the abode of artists and writers whose gardens at least afford some space and fresh air to this overgrown city.[2]

So long since as 1866 evidence was given before the Royal Commission by Mr. Steward, secretary of the London and North Western Railway Company, that three, and sometimes as many as seven, empty seats were despatched for every full one; that if this waste of room was prevented, the cost of travelling could be greatly reduced and punctuality increased; that instead of unwieldy trains of 25 or 30 carriages, 10 or 15 would suffice; that the cost of conveying empty carriages was nearly as great as that of full ones; that the first class passenger thinks himself

[1] "Rival companies run contemporaneous trains half full, sometimes at a positive loss. From London to Manchester 32 trains are run daily; to Liverpool 28, and to Scotland 16. There is an immense waste of work, of coal, and of passenger accommodation. In the last-named particular the waste is simply colossal. In 1888 the passenger carriages of the kingdom numbered 35,548, and the passengers by them 742,499,164. This signifies that each carriage during the year conveyed 20,887 passengers, or less than 58 per diem. In the case of first and second class carriages the number of untenanted seats is greater in proportion."—Letter in *Daily Chronicle.*

[2] The arguments for this line seem rather to prove the necessity of amalgamating the lines concerned, and completing them where deficient, than to justify the creation of a new entrance to London.

entitled to three seats, and is aggrieved if he has only one, and fees the porter to lock him in if he wishes to smoke.[1]

The profits of the shareholders have been constantly lessening, from 8 or 10 per cent. then to one-half now, notwithstanding the immense growth of population and increased travelling within that period. It is because working expenses have increased more than income. This unsatisfactory state of things Sir G. Findlay attributed to the greater cost of working railways, due to the higher speed and the heavier weights to which motive power has been applied. On the London and North Western passengers increased 87 per cent., but earnings improved only 44 per cent., and while accommodation increased 76 per cent., gross receipts only augmented 28 per cent., and he took a gloomy view of the prospects of shareholders. Yet, according to his showing, the greater part of the expenditure has been upon the unremunerative first

[1] "A large proportion of the train mileage is useless, being far in excess of the requirements of the public; that locomotives and carriages are being employed on many lines in merely dragging their own dead weight, sometimes with no greater number of passengers than would fill an omnibus, and often all but empty. 'The accommodation of the public' is the excuse put forward by managers, but the only test of the public requiring the accommodation is that they make use of the trains provided for them."—"The Great Railway Monopoly," *Quarterly Review*, October, 1868, p. 301.

Has the lapse of above twenty years changed this? "It may be, of course," said Sir G. Findlay, "that during the busiest season, extending over four or five months of the year, there is sufficient traffic to utilise the whole of the trains run by the various routes; but there is no doubt that during the remaining seven months the accommodation provided is, in the aggregate, far in excess of the requirements, and that, as a matter of fact, the trains are frequently run with very few passengers in them, doing little more than paying their expenses." Without expecting the "British public to go to Scarborough or to the Highlands in February," one hardly sees the necessity of two lines running as many trains in February as in August.

class passenger. He it is who demands high speed and ample space. High speed means heavier engines and carriages, a stronger permanent way, a more elaborate system of signalling and interlocking. A first class carriage which ordinarily would accommodate 40 passengers will now, owing to the introduction of lavatories, only accommodate 28. It seems obvious that those who want these high speeds and large accommodation should pay for it—at least, that the third class should not. No one begrudges the rich their luxurious accommodation ; but when we are told, on what appears to be very good authority, "that the balance of loss from first and second class services of all the railways of England and Wales north of Thames for the year 1890 was £325,000, which, but for the maintenance of those services, would have gone directly into the pockets of the ordinary shareholders,"[1] we may well wonder why the comfort of the vast majority of railway travellers should be lessened to maintain unremunerative traffic, when all might be good.

It is said, however, that of every penny a passenger pays, only one farthing is devoted to train-movement expenses, one farthing in maintenance of the railway, the bridges, stations, signalling, office expenses, taxes, &c., and the remaining halfpenny to pay the 4 per cent. dividend to those whose capital built the railway.[2] It follows that there is not much margin out of which to make reductions in fares. There is, no doubt, much force in this statement. But it does not take into account that if railways belonged to the State, it would in its own interest abolish all competition that represented waste, it would discontinue useless boards of directors, and, further, that the interest on the capital would not require to be 4 per cent., but probably one-

[1] Letter in the *Times*, August 31, 1892, by R. W. Giles.

[2] "Can Railway Passenger Fares be Lowered?" By W. M. Acworth, *Nineteenth Century*, September, 1891.

fourth less, with some day a reversion to the State of the railway free of cost, as in the French and our Indian railways. At all events, whatever could be saved, the public would have it. Their rates and fares would be settled by a responsible public authority, not at the discretion of numerous private bodies fighting for their own hand.

As if the indifference of the companies to the third class passenger were not enough, the Government made it worse by inflicting the passenger duty upon him, in face of the law that exempted him from it. The duty is altogether unfair to the railways because it falls on no other mode of conveyance. But nearly all fares not exceeding one penny per mile were exempted from 1844 to 1874, when the Board of Inland Revenue obtained a decision from the Court of Exchequer and the House of Lords, that a cheap train, to obtain exemption, must go from one end of the line to the other, and stop at *every* station. Through this decision the duty was raised from £70,322 in 1873 to £334,689 in 1878. The Government, instead of at once repealing these provisions, continued them, and the duty thus so largely increased. A Select Committee of the House of Commons in 1876 recommended that the tax should be entirely repealed as soon as possible, but that meantime all fares not exceeding a penny per mile, and in urban and suburban districts all fares of all classes not exceeding ninepence, should be exempt from the duty.[1]

[1] The passenger duty is levied on all passenger receipts except fares which do not exceed one penny per mile. Rate: 2 per cent. on urban district traffic receipts, 5 per cent. on other traffic receipts. In 1891 about £50,000,000 railway capital yielded no dividend whatever, and yet was taxed 5 per cent on passenger receipts. The injustice is greatest on such lines as the Metropolitan and District, which have to provide and maintain their own roads, and compete with the

The want of economy is surpassed in the passenger traffic by the injustice to the large majority of the travelling community in inferiority of accommodation. It was said that as the Irishman's pig paid the "rint," he had a right to live in the cottage; but the third class passenger, though he pays most of the dividend, gets no fair share of what he pays for. An analysis of the London and North Western Railway accounts for 1888, made by R. Price-Williams, C.E.,[1] showed that in that year the working expenses for the first class amounted to 97 per cent. of the gross receipts, while those for the second class *exceeded* the gross receipts, viz., 104·44 per cent. On the Great Northern and the London and North Western lines the second class does not pay its expenses. The same writer's table shows that the third class amount to only 41 per cent. of the gross receipts. In other words, of the 11⅓d. received in that year from each of the 51,500,000 third class passengers, sixpence each was net profit; of the 5s. received from each of the 1,915,815 first class passengers, the profit was 1⅓d. each; while the 3⅓ millions of second class were carried at a loss of £15,000. Thus the second class passenger is carried at an actual loss, made good by the third class passenger.[2] The Scotch express, with the weight of the sleeping-car, carries its first class passenger at less per ton per mile than the coal rate.

The result has been, as Sir G. Findlay said, the

omnibuses and tramcars, which do not. Some of the railway companies charge their season-ticket holders with the passenger duty, and even express the charge on the tickets. Under State ownership not only should the passenger tax disappear, but the local rating, which is often very unequally levied.

[1] See Note B.

[2] Paper by Sir G. Findlay on "Modern Improvements of Facilities in Railway Travelling," Society of Arts, February 14th, 1890.

railway companies are providing the most luxurious accommodation for the "superior classes" practically at their own expense; he doubted, indeed, if upon the first class passenger carried long distances by express trains there is any profit at all: "it is the humble and once despised third class traveller who furnishes the sinews of war."[1]

The same high authority stated that to obtain £100 from first class passengers it costs the—

London and North Western £92, but from the third class only £42.
Great Northern £94, but from the third class only £53.
London, Brighton and South Coast £76, but from the third class only £30.

Notwithstanding the increased mileage of the railways within the last forty years, the first and second class passengers were many millions less than they were at that time, no doubt due in a great measure to the improvement in the third class carriages. All that is wanted now is to carry that improvement further, to make it universal, and to render the proportion of charge and accommodation *just*.[2]

[1] "The Working and Management of an English Railway," by Sir George Findlay, p. 236.

[2] The earnings on five leading lines in 1884 and 1890 per train mile were as follows:—

	Third.		Second.		First.	
	1890.	1884.	1890.	1884.	1890.	1884.
	s. d.	*s. d.*	*d.*	*d.*	*d.*	*d.*
Great Northern	2 1·96	2 0·87	1·97	3·23	4·25	4·71
Great Western..	2 11·57	2 9·42	5·41	8·82	3·80	5·36
London & N.W.	2 6·18	2 4·26	3·68	4·77	5·81	6·55
Midland	2 4·36	2 4·56	—	—	3·89	5·15
North Eastern..	2 8·83	2 6·31	1·32	2·03	2·96	3·57

The proportion of third class passengers is about 7·35 times

The latest reports of the companies all attest the same remarkable growth of the third class, and decline of the first and second class passenger traffic, and their less remunerative character.[1]

What is the lesson from these statistics? It must be admitted that the third class passenger on a few lines has now better carriages, more trains, and quicker ones. The East Coast (G. N. and N. E.) lines third class have corridor carriages, lavatories, ladies' compartments, warmers, etc. The Midland and Great

that of the first and second classes combined. Comparing 1890 and 1891, the disparity increased, viz. :—

	Number.		Receipts.	
	1890.	1891.	1890.	1891.
First Class.....	30,187,000	30,423,776	£3,194,000	£3,143,609
Second Class...	62,860,000	63,378,397	2,646,000	2,527,481
Third Class ...	724,697,000	751,661,495	21,143,300	21,809,859
Season Tickets	——	——	2,316,000	2,432,970
	817,744,000	845,463,668	£29,299,000	£29,913,919

[1] As to the Brighton line, Mr. Laing said (January, 1892):—"On our line in the last ten years the decline has been per annum: first class, in numbers from 2,116,009 to 1,764,516; in money, from £248,797 to £217,597. Second class, in numbers, from 3,895,511 to 3,268,757; in money, from £267,475 to £187,403. While in the same period the increase has been: third class, in numbers from 32,368,005 to 39,754,111; in money, from £713,479 to £1,050,312." He is right in supposing that the 3¼ millions of second class passengers would not like to be driven into the hard-seated, badly-lighted, comfortless third class carriages, or to pay first class fares, but there is a better alternative, and he admits that there "would be some convenience and economy in having only two classes," but prefers to "let well alone." If season tickets were granted to the third class in the same proportionate terms, the difference in the three classes would be much greater in favour of the third class. "The Brighton line is the proud possessor of ·85 per cent. of English trains which carry first or first and second class passengers only; the third class mortal being beneath this company's notice, if he aspires to go by convenient trains."

Northern thirds leave little to be desired. The Midland again leads the way by attaching third class dining cars, which will be similar in their arrangements to the Pullman dining saloons, and both first and third class cars will be served from the same kitchen. But though *every increased facility given has been amply rewarded*, many of the companies still decree that the traveller who pays the dividends shall sit on hard seats in comfortless carriages, and shall not be able to travel at the times and to the places convenient for his employment nor have a season ticket.[1] The travellers in the palatial cushioned carriages can make themselves heard and felt, the third class passenger cannot. The companies have been allowed to do pretty much as they like, and hence our railway service has been and continues to be the dearest in Europe. As Mr. Gladstone

[1] From 1866 to 1870 under the old system the income from the third class increased on—

The Midland	44 per cent.
London and North Western ...	22 „ „
Great Northern	20 „ „

But from 1870 to 1873, under the improved system of adding third class to more trains, the increase in the third class was on—

The Midland	155 per cent.
London and North Western ...	128 „ „
Great Northern	126½ „ „

("The Million on the Rail and Railway Dividends," G. W. Jones, 1874.) In 20 years the receipts have altered in the following proportions. The figures given below are for the period named, at intervals of five years :—

Year.	First Class.	Second Class	Third Class.	Season.	Total.
1870	£3,330,000	£4,365,000	£6,177,000	£599,000	£14,471,000
1875	3,983,000	3,293,000	11,082,000	1,005,000	19,362,000
1880	3,250,000	3,061,000	12,750,000	1,280,000	20,341,000
1885	2,646,000	2,494,000	15,212,000	1,617,000	21,968,000
1890	2,637,000	2,278,000	18,164,000	2,049,000	25,128,000

said in 1844:—"It is no sound reason that because this country is rich, it should pay railway companies more than necessary, or that cheap travelling should not be provided for the public. But there is no likelihood that the great experiment of the greatest possible cheapness to the public will be tried under the present system." The proper object should be solely public utility, the benefit of agriculture and trade; and if the railways earn enough to cover the cost of working and replacement, they have attained it. That cost, however, should not be increased by surplus lines or needless trains, and the distribution of charge to recoup cost should be in equitable proportion to the services rendered, whether to rich or poor passengers, to large or to small traders. When this principle is departed from, whether by the State or by a private railway company, an injustice is committed, which sometimes reasons of convenience may permit, but which should at least be justified by public welfare. A demand for rates and fares that will not pay cost of transit and interest on capital is a mistake. Of passenger fares the rule should be, *be cheap, be cheap* (remembering how cheapness encourages traffic), but be not *too cheap*. Unless the fares pay outlay, the difference must come from the pockets of those who do not travel for the benefit of those who do. Surplus income beyond this necessary cost should be expended by the State as owner in improving the service, instead of being employed, under compulsion of the Treasury, like the Post Office surplus, in lessening taxation.

The country, in default of protection by the State, hardly knows the debt it owes to the Midland Railway Company, which in 1872 added third class to every train, and by so doing compelled the others (though slowly and reluctantly) to add third class to most trains. Yet it is instructive to remember that its manager (the late Sir James Allport) at an earlier date predicted that the result of such schemes

"would be utter ruin. It would be impossible for the company to work, or for the lines to accommodate, the trains numerous enough to give anything like a sufficient return."

Sir Daniel Gooch, another great railway authority, told the Royal Commission of 1865 that "he did not think reducing the fare tempted people to travel. The working classes have not the time to travel." "Any reduction of the fares would be prejudicial to the companies." The one authority thought the travellers would be too numerous, the other they would be too few, but they agreed in rejecting the proposal.

The South Eastern Railway instructed its officials to place third class trains in sidings where they stood for hours. The then manager (Major Walter) tried to get better treatment for them, but was told by Lord Torrington it was "an utter subversion of the company's revenue, and any such revolutionary experiment was sure to result in ruin;" and the great Duke of Wellington thought these third class facilities to be a breach of contract, "a premium to the lower orders to go uselessly wandering about the country."

And now, although the greater part of the *nation rides third class*, the companies very imperfectly recognise the fact and its proper import. True, the third class passenger is no longer consigned to a truck open to all weathers, and without a seat. But that he is now permitted to go third class in most trains still depends upon the goodwill and pleasure of the directors and managers of railway companies. Except one parliamentary train a day, and a few workmen's trains, they *could* take the third class from all trains, and thus raise fares 50 per cent.[1]

In 1875 the sagacity and courage of the late Sir James Allport abolished the second class, which

[1] "State Control of our Railway System," by S. Laing, Chairman of the Brighton Line, *Fortnightly Review*, April, 1886.

became the so-called third class, and the latter name was retained because the tickets often ran over other lines which did not permit the penny per mile passenger to travel second. It has taken twenty years to partially convince some other railway companies of the advantage of the Midland example. Even Sir G. Findlay said, "The London and North Western at any rate believe that society in this country naturally divides itself into three classes."[1] As it is admitted that the third class pays most of the dividend, it appears somewhat insolent that over 750 millions of third class passengers should have only that kind of carriage, sometimes comfortable, often far otherwise, that accords best with the companies' ideas of the fitness of things, or that social distinctions should be exaggerated at the will of railway magnates. Where, as in some leading lines, the so-called third class carriages are as good as the majority of the second, these are superfluous.

Justice would say that those who, to use Sir G. Findlay's expression, object "to rub elbows with the honest wearer of corduroys" should pay for their exclusive privilege. The third class should, as some are, all be improved to the standard of the second and run at cheaper rates, and the second be abolished entirely. As the working man is supposed to be good enough to govern us, he might be thought good enough to ride with those he governs.

A writer in the *Times*, however, says, "Governesses and other ladies, and even peers' sisters and daughters, make use of second class accommodation, not only for pecuniary reasons, but also for refuge from the rowdy or drunken element, and for greater per-

[1] Since then this company has ceased running second class carriages between stations in England and stations in Scotland, and the issue of second class tickets between English and Scotch stations will cease, and second class is practically abolished on half the railway mileage of the country.

sonal safety from annoyance and overcrowding. They have practically a quiet retreat at present in the second class; and it seems hard upon ladies and gentlemen of limited means that a long custom based upon Parliamentary enactment should be set on one side for the mere benefit of any railway monopoly or monopolies."[1]

The mixture of classes helps to destroy the "rowdy" element (the drunkard ought not to be admitted at all). The "great unwashed" will never be clean if left to themselves. Treat men with respect, and they will become respectable. It would not be reasonable to permit a workman in his soiled clothes to inflict his dirt upon his neighbour in any class; but if this were generally understood, he would find a way to keep his working clothes for his work. Better level up than level down. The "ragged school" was a characteristic feature of the first stage of the educational movement, but we are getting beyond it, and soon will be ashamed of it—so, too, of the "workman's train."

"Rowdyism" is not peculiar to any class, and is not more prevalent in proportion to numbers in the third than in the other classes. We have gone a long way since the time when "the third class passengers were packed into trucks, and it was considered a concession when they were placed in carriages

[1] The General Manager of the South Western line (Mr. Scotter), in an interview with a representative of the *Daily News*, throws a light on some of these demands. Though carriages are set apart for ladies in every class who choose to use them, they prefer other compartments, and will even go where men are smoking rather than travel with their own sex only. The instances of outrage are very rare, the charges often baseless and even demonstrably false. To certain trains Pullman cars are attached, "which people desirous of such protection as publicity affords should take advantage of. Yet on an average for each journey we carry in these cars only nine passengers, where twenty-four easy-chairs are provided. For one person who wishes to travel in a Pullman car we find ten asking that places may be reserved for them in 'lavatory carriages.' These as furnished on our line seem to fulfil the general idea of luxurious travelling."

with roofs, though their open sides afforded small protection against the inclemency of the weather." Since the better educated have betaken themselves to the third class carriages the general behaviour has improved, and many a gentle lady would as soon trust fellow-travellers in fustian as in broadcloth. The Great Northern has abolished the second class for long-distance traffic, with the result of transferring it to the third, but probably with no ultimate loss. The Manchester and Sheffield line has also ceased to issue seconds on certain portions of its lines. The Hull and Barnsley has abolished the second class, and the result is an increase of 9 per cent. of passengers, and $3\frac{1}{2}$ per cent. in receipts. All the Scotch railways have abandoned the second class (except the Highland), and the second class may be considered as doomed. If season tickets were granted to the third class, this, and the saving by the reduction to two classes of carriage, would speedily recoup the loss by the abolition of the second. But the companies dictate the conditions to their best customers. The Board of Trade seems to have little or no voice in what is really a great social question. The diminishing numbers of second class passengers, and the cost of maintaining three classes of carriages, will assist the change. Every improvement in the third helps to empty the second, and to some extent the first class ; hence some companies hesitate to make them. Under State ownership this motive would not operate. All carriages might then be good, warmed in winter, and lighted by electricity instead of by the dingy light too prevalent. Those who desire to travel apart might gratify their desire, provided they did so at their own expense, instead of at that of their fellow-travellers. Could there be a stronger condemnation of the system of management by companies than that while running the half-empty first class carriages they pack their best customers in

often comfortless ones, and at certain hours of the day shamelessly overcrowd them? By a curious arrangement the surplus passengers may be fined, but not the railway company, which, if it does not encourage, permits and profits by the overcrowding, borne, it must be admitted, with good-natured forbearance, but which, so far as the company is concerned, is often simply taking money by false pretences for accommodation which does not exist, instead of permitting the excess to ride in the empty carriages. In the early workmen's trains especially, the first and second class are absolutely empty, and might be dispensed with, while the third are so crowded that often there is not standing-room, and, as Sir Charles Russell lately said, "men, women, and children were forced into the trains in a way they would not herd sheep or bullocks."

The temperature may be freezing, but the attempt is seldom made to warm the third class carriage. Then there are stations with either no waiting-room or no fire, and the passengers are exposed to the biting wind. This, and the shameful unpunctuality which characterises some of the suburban lines, is shared by all classes.[1] The importance of the question may be

[1] In a letter to the *Times*, Feb. 5th, 1892, Sir Francis Peek writes, "May I appeal for help on behalf of the long-suffering residents in the South of London who day by day are exposed not only to great discomfort, but often to physical danger, through the failure of the railway companies to carry out the moral, if not legal, obligation of supplying proper station accommodation, as well as a sufficiency of decent carriages and reasonable facilities for the convenience of the districts over which Parliament has granted them a monopoly?

"The three chief offenders are undoubtedly the London, Chatham and Dover Railway, the London and South Western Railway, and the South Eastern Railway." On the first, he says, "The two nearest stations to my residence supply a large and populous district, and the platforms are often crowded, yet the only stations provided are wooden sheds, put up about thirty years ago for temporary purposes.

"Many of the carriages are hardly fit for cattle trucks, and

better estimated when it is remembered that within a six-mile radius of Charing Cross there are 270 miles of railways and 255 stations, and the estimated number of passenger journeys on local lines is computed to be 177,000,000 yearly; and adding the London traffic on the lines of the great companies, brings the estimated total to 327,000,000 per year.

As if the distinction of first, second, and third class passengers were not enough, we have that lower class still, the "workman's train." If anyone should ride comfortably and be freed from all inconvenience and disabilities by reason of railway regulations it is the man who builds and furnishes our houses, makes our clothing, supplies our daily wants, and constructs the railway he rides upon! Yet we think and speak of him somewhat in the manner the white man regards the negro, or the Brahmin the Sudra. These distinctions stimulate that wretched vanity which prompts thousands of foolish fathers of the working class to overcrowd the market with superfluous clerks and shopmen from the Board schools, who pay the penalty in low wages, long hours, and unhealthy surroundings, merely to wear cloth instead of fustian. The dignity of labour, is it not an unmeaning phrase? No one asks pity for a man because he works. Work is not only a necessity, a duty, but a pleasure and the best education. The obligation to work is

all are dirty and generally ill-kept. The overcrowding is also at times disgraceful for want of sufficient trains.

"Considering that large numbers of the population of London are compelled daily to travel on these suburban lines, it has become a most important question whether, when Parliament granted the exclusive privilege to certain railways, this privilege was intended for the benefit of the companies, the directors, or the public.

"In the case of the London, Chatham and Dover Railway the convenience of the public is ignored, the shareholders obtain nothing, and the only persons who really benefit are the directors who so grievously mismanage the line."

treated as a sign of inferiority, and our "workmen's" trains, with all their discomforts and inconveniences, help to fix the stigma that too often attaches to honest manual labour.

Public opinion in this aristocratic country is not yet prepared for a single-class carriage for everybody, though in London alone the omnibus, the tram-car, and the electric (City and South London) railway, carrying 400,000,000 of passengers yearly, have all one class, and nobody seems the worse. The Australian railways had three classes, but have now almost entirely abandoned the third. Why should the Englishman be worse treated than the American, who knows nothing of "workmen's trains"? Almost the whole passenger traffic there is first class,[1] and, in that dearest of countries, it costs only one-fifth of a penny more than the Englishman's third class. Though 97 per cent. of Indian passengers ride in third class carriages, somewhat like ours formerly were (better suited, however, to the climate), they have to pay only a farthing per mile for it. The unfairness of the present system is found in the fact that while the companies give very reduced season tickets to the first and second class, which yield such little profit, they, with one or two trifling exceptions, do not grant third class season tickets. Mr. S. Laing (chairman of the Brighton

1

	Percentage of Passengers Carried.		
	1st Class.	2nd Class.	3rd Class.
United Kingdom	6	10	84
France	8	32	60
Germany...	1	13	86
United States...	99	½ of 1	½ of 1

line) says that "in some cases first class passengers can travel by express trains at one-fifth of a penny per mile." While the gentleman can ride at one-fifth of a penny per mile by every train, the average rate for the "workman's train" on this line is about one-third of a penny (0·320d.) per mile, by a limited number of trains and in inferior carriages. If as a third class passenger he wished to travel by any train he must pay for his return ticket double this rate (0·670d.) per mile![1] This is the case with all the 13 lines having termini in the Metropolis.[2] The same report of the Committee of the County Council quotes a paper read by the architect of the Artisans' Dwellings Company at the recent Congress of Hygiene, which shows that a third class passenger on nearly all the lines which supply the metropolis pays

[1] "The holders of workmen's tickets should be entitled to return third class by any train, instead of being restricted, as in the case of the South Western and other lines, to trains starting after 12 noon on Saturdays, and after 2 on other days." (Report of Public Health and Housing Committee of County Council, Feb. and April, 1892.)

[2] MEAN RATE PER MILE TRAVELLED.

	WORKMEN'S DAY TICKETS	3RD CLASS RETURN.
	d.	*d.*
London and South Western	0·456	0·662
Ditto, Outside the Metropolitan Area ...	0·310	0·770
Ditto, Inside and Outside the Metropolitan Area	0·332	0·754
South Eastern	0·350	0·870
London, Chatham and Dover	0·336	0·724
London, Brighton and South Coast ...	0·320	0·670
London, Tilbury and Southend	0·275	0·698
Great Northern	0·329	0·924
Great Eastern	0·319	0·824
Metropolitan District	0·322	0·738
Midland	0·325	0·603
North London	0·293	0·646
London and North Western	0·295	0·522
Great Western	0·377	0·739

on an average as much for his journey backwards and forwards six days a week as a first class passenger who has the privilege of a season ticket. As an example, a first class season ticket between Brixton and Ludgate Hill costs £8; a third class passenger who takes his daily return ticket six days a week, costing 6d., pays in the year £7 16s.; if a season ticket were issued to third class passengers in the same ratio as to the first class it would amount to £4 8s. 8d.

If season and return tickets were granted to the third class on just and easy terms, their enormous preponderance over the other classes would be largely increased. As an instance, the Great Eastern Railway has largely profited by reduced fares of workmen's trains.[1] It does not, as it ought, grant them by every train. The

[1] The Great Eastern charges first and second class season tickets very high, but gives considerable facilities to the working classes. Its Acts bind it to run only five workmen's trains per day and a distance of 22¼ miles, but it runs 49 trains 218¾ miles. After the workmen's trains have done running up to 8 o'clock in the morning, the company supply the class of people above the usual workman, but not the middle class (!) with half-fare trains, returning home by any train. Though not required by their Act, they run forty such trains daily, representing a distance of 366 miles. As 12,000 workmen's return tickets are issued per day, this represents 24,000 passengers, besides 5,830 half-fare return tickets, equal to 11,650 passengers, to all which must be added for all trains in their suburban district 19,400 penny tickets and 9,500 twopenny tickets. As Mr. Birt, in giving evidence on one of the company's Bills in 1890, said, "No company has carried out the half-fare principle in the thoroughgoing way that we have. It has been a necessity with us to do it, in order to build up a population in the suburbs which we serve." The Great Eastern Railway carries upwards of 6,000,000 a year of workmen, and they only pay a penny for ten miles between Enfield and London, thus having the advantage of keeping their families in the country and going backwards and forwards themselves at cheap rates. It, however, brings its workmen passengers from Enfield, Edmonton, and Tottenham, to Liverpool Street at 6 43 a.m., mostly not required in London until 8 a.m. The intermediate hour is useless, and in bad weather comfortless. This enlightened company

vagaries of the companies are endless, but most of them are better than the Acts which govern them, so little has the State protected the interests of the people in this vital matter; and while some of their Acts stipulate for only one cheap train morning and evening,[1] they supply a considerable number. But they are often timed at inconvenient hours, and in some cases so early as to cause some bodies of men to be too soon for their work and some too late; in other cases it is felt inconvenient that no workmen's train starts from a station after 7.30 a.m. or 8 a.m. The restriction as to time of return, viz., after 12 p.m. on Saturdays and 2 p.m. (in some instances 4 p.m.) on other days, is felt to be "vexatious and unnecessary." Sometimes the companies' arrangements compel the men to take tickets to a station beyond the one required. Two companies require the ceremony of the workman giving his name, address, trade, and that of his employer. Several lines are under no statutory obligation to run workmen's trains beyond the requirements contained in Section 3 of the Cheap Trains Act of 1883,[2] and the Great Western does not run a single workman's train on its main line.

has abolished its second class except for suburban and Continental traffic, and as its third class shows a greater increase than any other, it might well follow the Midland example with these also, and give equally good carriages to its third class.

[1] These include the following:—The London, Chatham and Dover, the Metropolitan, the Metropolitan District, the North London, and the East London.

[2] These include the London, Brighton and South Coast, the Great Northern, the Great Western, the London and North Western, the Midland, the South Eastern, the London and South Western, and the London, Tilbury and Southend. The Midland company issue third class season tickets to and from St. Pancras and Elstree, twenty-four miles, at £2 6s. for three months, which is just about sixpence per day. A Bill was introduced into Parliament in 1890 to fix for passengers by all workmen's trains arriving at the terminus before 8 a.m., from any station within twelve miles of the terminus, a maximum

But the working man is not in this matter entirely in the hands of the companies, as a recent decision has shown. Workmen residing near Willesden Green and Neasden brought their case before the Railway and Canal Commission, and in consequence the Metropolitan Railway were compelled to run two more early trains at a reduced fare. Here the objection was raised that the memorial was signed not by *bonâ-fide* workmen but by clerks, warehousemen, and shop assistants, as if these too were not *bonâ-fide* workers, and often receiving less wages than the former.[1]

return fare of one halfpenny per mile of the distance between the station and the terminus, but it was dropped.

[1] The case as stated by Mr. Ambrose, Q.C., M.P., was that the three workmen's trains which were timed to start from Neasden at 5.25 a.m., 5.48 a.m., and 6.15 a.m., provide no accommodation for those workmen who were employed in establishments opening their doors at 8 o'clock. This was the usual time in the upholstery trade, for example, and in many others ; and when it was considered that an extra 5d. spent upon a return journey represented a reduction of half-a-crown on a week's wages, it would be seen that the refusal to provide the accommodation would be sufficient to induce a workman to remove to more favoured localities. On other parts of the Metropolitan system workmen's tickets for a return journey of fourteen miles (seven miles each way) were charged 2d. only, but from Willesden to Baker Street, the return distance being six and a half miles, the fare was 3d., and from Neasden, the return distance being about eight miles, the fare was 5d. He contended that the remission of duty granted to the Metropolitan Company under Section 2 of the Cheap Trains Act, 1883, amounted to some £7,000 per annum, and that this afforded a substantial *quid pro quo* should it be objected that the provision of the increased accommodation would result in loss to the railway company. The Court were of opinion that the time-table should be revised to the extent of making two of the trains between 6.15 a.m. and 7.15 a.m. workmen's trains, and that the workmen's fare from Neasden to Baker Street should be reduced from 5d. to 4d.—*Times* Report, April 27th, 1892.

The number of workmen using tickets daily on the Metropolitan railways in 1889 was 18,942,835, so that their custom demands very adequate attention. Within the last two years the number of tickets issued has increased largely.

There is no adequate reason why all trains should not be workmen's trains, and as comfortable as third class now are on some of the leading lines. Nearly all the companies have no fare lower than 4d. per day return tickets or 2s. per week, and some are considerably higher, and in this case it becomes a serious addition to the rent of a suburban dwelling —to large numbers it renders one impossible. The high price of workmen's tickets is a constant complaint, and the requirement of a deposit for season third class in the few cases where granted is often prohibitive.

That much-maligned body, the London County Council, has twice approached the Board of Trade on this subject. The Board in consequence addressed an inquiry (20th December, 1889) to twelve companies as to the train service for the working classes for the suburbs of London. The companies thought they had done enough, and will no doubt continue to think so, and shake their Acts of Parliament in the ungrateful faces of the British public. Yet as they demolish the houses of thickly-populated districts to make room for their lines and huge stations, they are doubly bound to provide access at its lowest cost. The Health and Housing Committee of the London County Council again dealt with this subject in 1892. In their Committee's Report they say :—

"The London and North Western and the Great Western both touch Willesden Junction, and probably

The clause in the Cheap Trains Act (1883) is as follows :— "If upon any railway carrying passengers proper and sufficient workmen's trains are not provided for workmen going to and returning from their work at such fares and at such times between six o'clock in the evening and eight o'clock in the morning as appear to the Board of Trade to be reasonable," the Board of Trade can be called upon to make an investigation and, unless the railway companies concerned prefer the Railway Commissioners, will order additional trains.

no part of the area of suburban London is so poorly provided with workmen's trains as the district around this junction. No part of suburban London is more in need of workmen's trains for its development, or more likely to be immediately benefited by an adequate supply of such trains. The results of special inquiries show that as regards both lines there is plenty of building land in the vicinity of stations that would be likely to be rapidly covered with special houses suitable to workmen, were the facilities for getting to and from their work provided with any approach to those so liberally made by other lines. The Great Western makes no provision at all for working men, and they are, in consequence, put to immense inconvenience and hardship to reach their work in London." The same facts are applicable to many other districts round London; *e.g.*, a police constable at Ealing has to call workmen as early as 3.30 a.m. to enable them to walk to Shepherd's Bush (four miles) to get a workman's train to London. Years ago, as the broad-gauge railway, it was noted as the "gentleman's railway," to run high-priced express trains, while the third class trains were limited to the Parliamentary minimum and the slowest on any line. The civility at the roadside stations was equally limited, being reserved for the first class travellers.

The County Council suggest "that the true solution of the problem lies in the establishment of some zone system, treating each terminal station as the centre, and fixing the cost of tickets accordingly, such tickets to be good for all stations within the particular zone, and regard being had in fixing the zones to the desirability from a public point of view of offering inducements to the working classes to make their homes as far as reasonably practicable from the centre of London. For example, there might be three distances or zones, the first covering

five miles, the second ten, and the third fifteen miles and upwards." This proposal seems plausible; but there are considerable advantages in a uniform charge any distance (within reasonable limits), as in New York. A new Bill promoted by the District Railway undertakes to issue workmen's tickets at the rate of 1d. up to 4 miles, 1½d. for 6 miles, 2d. up to 8 miles, 2½d. up to 10 miles, 3d. up to 12 miles, and ½d. for each additional 2 miles or part of 2 miles.

Who can compel the vested interests of the companies to carry out such recommendations? With private monopolies they are mostly impossible. The directors of railways are not less intelligent or patriotic than the members of the County Council. Why, then, difference of views? Simply because the former represent *personal*, the latter *public* interests. It is difficult to awaken conscience in a company formed for personal gain; and every day we see, even in the professions, good men who sanction abuses and resist reform in their *corporate* capacity. This difference is illustrated in the representations which the County Council of London intend to submit to the Joint Committee of Lords and Commons which has to consider the various electric and cable companies recently proposed.[1] These proposals seem to be

[1] The Council recommend that the size of the tunnels of the lines should be sufficient to allow in the future of an interchange of traffic with existing railway lines; that, subject to the other conditions and to any geological or other unforeseen difficulties which may be met with, underground lines should not follow the line of existing streets, but should go from point to point, the depth below the surface being such as to avoid injury or inconvenience to buildings in the line of the railways; that the companies should only be allowed to acquire the right of forming the tunnels without acquiring any absolute freehold in the soil, paying compensation for actual damage only; that the Council have compulsory powers of purchase of the undertakings; that evidence be placed before the Joint Committee showing the importance of continuing into the country electric and cable lines which may pass under London in order to

reasonable. But there are difficulties connected with London traffic which exist nowhere else. The enormous concentration of population in the greatest city in the world requires special action to meet it. The ordinary system on which railways are obtained will not apply to London—in other words, the increased cost of railway communication does not offer profit sufficient to tempt the investment of the necessary capital ; and the lines, whenever made, will probably have to be made by public authority.

In an admirable article in the *Quarterly Review* the writer shows that London is behind New York in railway accommodation, and even in omnibus and tramcar facilities behind other less important cities. To meet its present and fast-growing wants, numerous railways have been projected, and some actually passed by Parliament, but *have not been made*—"railways which London badly wanted and might have had, if only anybody could have been found foolish enough to pay for the making of them." [1]

The reviewer shows that the continual expansion of suburban districts makes omnibus traffic inapplicable for such distances, on account of the loss of time and the already too great congestion of street traffic ; that existing railways are already overcrowded at the morning and evening hours inevitable for the necessities of business ; that the existing underground railways do not pay their dividends, "such as they are," from the penny per mile fares over the crowded interior parts, but from the more

relieve the congestion of population, and to encourage building in the suburbs. Another illustration of this difference of view is shown in the proposal of the County Council to compensate by annuity or otherwise the men who may be injured, and the families of those who may be killed in the construction of the Blackwall Tunnel. It would be cheering to see a similar resolution passed by every railroad and industrial company.

[1] *Quarterly Review*, October, 1892, "Rapid Transit in London."

remote parts of the lines, which, for that reason, are being extended. Similar underground lines like the Metropolitan and District Railways could not be constructed under valuable buildings, as these were, at less than £1,000,000 per mile, and no probable traffic would pay reasonable dividends upon the outlay. The reviewer's conclusion is that the only possible lines are those known as the "Greathead system"—large tubes underground, involving no disturbance of the surface soil, passing mostly under roads and streets, and therefore involving no compensations for land or injury to property. The one specimen of this kind in London is the City and South London, from Stockwell to the Monument, at London Bridge. From the passenger point of view it is a success (though, with added experience, capable of improvement). The passenger is carried at omnibus or tramcar fare, at double their speed, and in a comfortable carriage not exposed to the weather. But the financial result presents another aspect. After paying debenture and preference interest, the shareholders received $\frac{5}{8}$ per cent. dividend. The net earnings, after paying working expenses, are about £13,000, or a little over $1\frac{1}{2}$ per cent. per annum on the total capital. Traffic may be expected to increase (it is doing so already), and expenses will not increase in proportion. It is conceivable that with the increase of experience in making such lines, with a slight increase of fares above the $1\frac{3}{4}$d. present average fare per passenger, the net dividend might be raised to 3 or $3\frac{1}{2}$ per cent.

There were eight such schemes, some of which have not passed and some have to be considered by Parliamentary Committees. They make a total of thirty-one miles, and are estimated to cost £9,500,000. This estimate is for railway tunnels (with one exception) of eleven feet six inches diameter. One exception is the Great Northern

and City, intended to join an above-ground railway, and therefore to be sixteen feet wide. The County Council and the City Corporation strongly urge that *all* these lines should be sixteen feet diameter; no doubt a much better one, but increasing the cost by about £2,000,000. The above include two lines (the Clapham Junction and Paddington, capital £1,050,000), which propose to give workmen's trains morning and evening at one penny per journey. Another (Edgware Road and Victoria, capital £1,200,000) proposes to charge the same class a half-penny per mile, and at very inconvenient hours. Made by the companies, the various lines will (*if made at all*) follow the special views of their promoters, without system, and with no organic relation to the needs of the community—often, indeed, in disregard of them.

With the example of the City and South London before them, "who will be found foolish enough to pay for the making of them"? They will, if left to private enterprise, perhaps fail, like the London and North Western and Charing Cross Railway (passed 1864), the London Central Railway (passed 1871), and several other abortive schemes. Even the Metropolitan, constructed at a far cheaper rate than it could be now, would have been abandoned if the Corporation of London had not subscribed £200,000. With the example of the City and South London and other metropolitan railways, investors are not likely to take the risks of the traffic at less than an estimated 5 per cent., which experience shows to be an impossible rate. But capital borrowed at 3 or 3½ per cent. *guaranteed* by the Government, or by a responsible public body like the London County Council, could probably be obtained. With no land to buy, with trifling compensations for disturbance, capital lent at a low rate, Parliamentary expenses reduced, no contractors or middlemen to pay, and no profits to shareholders, the County Council might undertake the work, with the

reversion of the railways to itself in so many years, as in French railways. Even the sixteen feet diameter, the extra expense of which, the promoters of these lines said, would "swamp" them, need not intimidate the London County Council, which has shown that it is not afraid of great undertakings worthy of the greatest city in the world. The *Quarterly* Reviewer, speaking of the reversion of these railways to the County Council, says: "For the County Council to demand in the first place that the railways should be permitted to expropriate the freeholder's property, in order that, in the second place, it may confiscate that of the railway shareholders, is about as grotesque an instance of a fallacious *sorites* as it is possible to conceive." "Confiscate" is a word often used in such discussions, but as "hitherto apparently the landlords have suffered the railway companies to appropriate it (the soil under the public streets and roads) gratis," and as when really *private* property is taken the owner is compensated, it hardly seems applicable. Landlords are not generally supposed to give up their rights to land, nor is it conceivable that they would make the preposterous claim mentioned.

The Reviewer calls attention to other claims which are likely to discourage ordinary investors.[1] Not

[1] The Central London Bill of 1891 contained four pages of clauses to satisfy the objections of persons and corporations affected. When it left the Lords, the four pages had swelled to fifty-seven pages. "The interests of the Sewers, of the County Council and the vestries, of every railway company that was passed *en route*, of the Grosvenor, Bedford, Portland and Portman estates, of half-a-dozen banks and insurance companies —from the Bank of England downwards—of the Latymer Charity, and Major James Childs, were all protected by clauses, requiring that every conceivable precaution which the most ingenious of architects and surveyors could suggest and the most peremptory of draughtsmen could embody in the most precise language, should be taken for the benefit of these various opponents at the expense of the Central London Company."—*Quarterly Review*, October, 1892, p. 504.

only are all kinds of onerous conditions imposed on construction, but non-remunerative fares are stipulated for workmen's trains.

"In the Central London Act, an obligation is imposed to carry workmen the entire six miles of the lines for a single penny." If it pays the Great Eastern to carry ten miles for 1*d.*, and the Brighton line to carry its first class passenger by express train at one-fifth of a penny per mile, why not the Central London six miles for a penny? In New York, he tells us, the universal fare for local traffic by the Elevated Railway, by tramcar, and by omnibus is 2½*d.* for the entire distance, and this enables the Elevated to earn a dividend of 20 per cent.! The passenger pays the same whether he travels two miles or ten miles, on the principle of the penny post; and, as the writer remarks, this encourages the decentralisation of the population, benefiting them morally and physically. It carries three-eighths of the population of New York, while the trams which run alongside of the trains carry as many more; and now the Rapid Transit Commissioners there are making arrangements for another local and suburban line, with a capital of £10,000,000, to be propelled by electricity, at a speed of not less than forty miles on the level.

Many years ago a Parliamentary Committee decided that in London the following conditions should be observed:—

(1) That no squares or open spaces should ever be taken for a railway.

(2) That a great central station in London would be objectionable, and that it is not desirable to bring the termini any nearer.

(3) That underground railways are preferable to overground within the metropolitan area.

(4) That no goods traffic should pass through the centre of London.

(5) That the internal railway communication should be under one management.

The first four have been adhered to, the last has not and cannot be unless the railways are under some public authority like the London County Council, or a body specially created for that purpose. This would prevent unnecessary construction and needless competition. As it is, the various lines will spend enormous sums in parliamentary expenses, in the promotion of and opposition to the various schemes. Not one of them should be sanctioned until the subject has been considered as a whole, without reference to promoters and rival companies.

When the London County Council pressed the question of cheap trains on the Committee of the House of Commons who were considering the new Manchester, Sheffield and Lincolnshire Railway, these proposals were declined, on the ground that it was impossible to prevent others than workmen using the tickets—a good reason for abolishing the distinction—but the Council persisted, and succeeded in obtaining a considerable concession.[1]

[1] Due to Mr. Pickersgill, M.P., as representing the London County Council, and Mr. Blundell Maple, M.P., who has taken a warm interest in this question :—

"The Metropolitan Railway Company undertake, from the 1st June, 1892, to adopt the following scale of fares for workmen, viz. :—For a distance of five miles and under, 2d. ; from five miles to ten miles, 4d. ; from ten miles to fifteen miles, 6d. ; including return in each case. Daily and weekly tickets on this basis."

The Manchester, Sheffield and Lincolnshire Railway (Extension) Bill, Clause 105, is as follows :—

"In respect of working men carried by working men's trains between the London station of the Company and Neasden and intermediate places, the Company shall not be entitled to charge higher fares than are for the time being chargeable or charged by the Metropolitan Railway Company by their workmen's trains between their Baker Street Station and Neasden and intermediate places."

Therefore the working classes in London will gain the benefits of this new scale of charges on both lines of railway.

The concession could be withdrawn, as it rests on the

The action of the London County Council is most commendable; they would, indeed, be faithless to one of their highest duties if they let this matter sleep. The Report of the Joint Committee of 1872 attached so much importance to this question that it even recommended that the municipal authorities of all large towns should be authorised to require the companies having stations in such towns to run workmen's trains at given hours and stated prices, guaranteeing the companies a certain income from such trains to be made good out of the rates[1] and only defensible under *absolute* necessity. Within a few years the leases of all the tramways will expire and renewals will depend upon the will of the Council. Under the Tramways Act of 1870 two workmen's cars must be run each way morning and evening at a halfpenny per mile. Much more than this will have to be done to meet the exigencies of a population so vast as that of London. The Council proposes to work the tram lines itself, by which it will not only save some of the profits paid to shareholders, but hopes to ensure shorter hours and better treatment of the employés. Some cities, such as Glasgow, have shown that this is practicable without a subsidy from the rates to make up the loss on working, as at Huddersfield. The proposal to have "free travel," succinctly described by Mr. Acworth as "all to travel for nothing and nobody to pay the bill," would render a problem, difficult enough now, impossible.

Cheapness of supply increases demand, and

good-will of the Metropolitan Railway and not on Act of Parliament. The Cheap Trains (London) Bill (1893) is drawn on similar lines, but compared with the Great Eastern the fares just quoted are much too high. All trains should be available, and the "workman's" train would not be needed.

[1] Report, 1872. Page lxxxix.

nowhere so much as in travelling.[1] The London General Omnibus Company reduced its rates by more than half, and yet, owing to the increase of passengers, continued to pay a high dividend A newspaper that would hardly pay at twopence often proves a great success at a penny. Letter postage at fourpence did not pay, but at a penny became highly remunerative. Telegrams at sixpence have increased to double the number since the reduction from a shilling. The field for travelling is almost illimitable, and the expense determines its extent more than any other consideration. Sir Edwin Chadwick related that once in a contest between the Glasgow and Edinburgh and the Caledonian lines where the first class fares were reduced from 8s. to 1s, the second class from 6s. to 9d., and the third class from 4s. to 6d., the reduction in the dividend was only 1 per cent., the cause being the remarkable growth of passenger traffic stimulated by the low fares. But he and some railway managers believed that if there had been amalgamation instead of competition, and the traffic concentrated on the most eligible line, the net returns would have been augmented. And Mr. Galt told the Royal Commission (1865) of an instance of

[1] The effect of this increase of third class passengers as compared with the first and second upon the rate of income per passenger is most remarkable. Sir George Findlay stated that on the London and North Western line "the gross earnings in 1871 from first class passengers was 13·59d. per passenger train mile, but in 1888 the earnings from that class were only 5·81d. per train mile. From second class traffic in 1871 the earnings were 16·17d., but in 1888 only 3·97d. per train mile. On the other hand, while in 1871 the receipts from the third class were 18·46d., in 1888 they had grown to 29·38d. per train mile. The net result of this wholesale transfer of passengers from the superior classes to the third class was that the total passenger receipts per train mile from all three classes combined fell from 48·22d. in 1871 to 39·16d. in 1888, this diminution representing a very serious loss of revenue when applied to a train mileage of upwards of 20,000,000 miles per annum."

a considerable reduction in fares that had made only a difference of 1s. per cent. in the dividend. Railway managers have always treated the travelling public as a limited quantity. Large masses of our population hardly travel at all.[1] Nothing hardly, even the cheap press, is more educative or tends more to civilise the population than increased facilities of travel, and also to equalise the conditions of employment.

The problem of overcrowded cities is intimately connected with the reform of the railway system. It was once thought that the erection of big blocks of "model" dwellings would to some extent remedy the evil of overcrowding, but the high cost of town land and of building have resulted in making air, space, and light the scarcest of luxuries. All the conditions point to outside village homes as a better plan. It is the suburban dwellers that are increasing, not so much the cities and towns themselves. While Liverpool has diminished 6 per cent. between the last two censuses, its suburban population has increased 60 per cent., and this in some degree is the experience of all the large towns with over 250,000 inhabitants.[2] Does anyone realise that London adds annually to its population 50,000, and over thirty miles of streets? Every day the land speculator is casting his eyes over the next open space to create ground rents, with the result that the interior rings become more and more costly. Though this rapid growth of suburban population has been pressing itself upon the public attention for the last thirty years, neither the central nor local authorities seem to think it their duty to secure space for even the next generation.[3]

[1] The average number of journeys is 20 single or ten return journeys per head per annum.

[2] "Rise of the Suburbs." By Sidney J. Low. *Contemporary Review*, October, 1891.

[3] In a debate on the subject of giving power to local authorities to purchase land for the further growth of urban

Left to individual self-interest, future extensions of the suburbs will be cursed with miles of confined, ugly, and unhealthy homes at ever-increasing cost. It is clear that life to these vast and growing populations can only be rendered tolerable by the aid of cheap locomotion. The welfare of vast populations depends upon their distribution, and this in turn on the will, it may be the caprice, of a few private companies.

"Philanthropic societies," says Mr. S. J. Low, "and local authorities busy themselves in impeding the lateral expansion of the towns, while trying to heap still higher the contents of the filled and loaded districts, where men live in layers one on the top of the other . . . . and artisans are encouraged and rewarded to bring up their young children in these barrack-like and prison-like tenements . . . . and County Councils propose to pull down slums by the acre, only to fill up the ground at enormous expense to the ratepayers with fresh sets of expensive dwellings. . . . The wiser and more economical policy would be to help on by improved means of locomotion the inevitable tendency which is leaving the costly sites in the inner circles of the towns to be used as places of business and public resort of all kinds, while the mass of the middle and working class population, the bone and sinew of the country, are being housed in ever larger and wider concentric rings of suburbs."

population (May 4th, 1892), it was mentioned that land which a generation ago was worth £40 per acre would now cost £5,000 to £10,000 per acre. The arrangement which secures such a large increase of individual wealth, to the curtailment of air, light, and space, to the majority of the community, is becoming a serious question. In Berlin certain members of its Municipal Council endeavoured to have inserted in a Bill to incorporate the surrounding villages with the capital proper, a clause proposing that the city should purchase all ground not already built on and sell it at moderate prices. This was intended as a means of lowering the exorbitant height of rents in Berlin.

But cheap railway transit is the essential condition. Our overcrowded cities can be depleted by carrying their inhabitants to outer districts at cheaper rates and convenient times, and thus give them access to healthier homes, pure air, and contact with Nature's scenery in lieu of their overcrowded wildernesses of cramped rooms in narrow streets. But heavy fares are a serious addition to rent. Nor is it only workmen who have to be considered. There are thousands, many of whom have less than workmen's wages, such as clerks, warehouse and shop assistants, and especially women workers. There are thousands of night-workers, market people, porters and others, who get little accommodation in returning to their homes after their labours, and the railway rates are only low where omnibuses and tramcars compete with them, although steam-power costs but a twentieth of horse-power. The omnibus will carry a passenger three miles for a penny, and the railway for three times as much.

Mr. Acworth suggests the question whether the reduced fares would benefit the workmen, or might instead go in part to the employer as a rate in aid of wages and part to the suburban landlord as additional rent. The same remark would apply to a reduction in the price of any other commodity as well as the price of transit. A penny or any other fare is not a law of nature. By reduced fares is not meant *charity* rates—rates not covering cost. "An American artisan considers that his wages should be sufficient to cover the cost of everything that is implied in decent living, and would reject with scorn a proposal to supplement his earnings with charitable contributions, whether voluntary or compulsory, from outside sources."[1] Our contention is that the fare the workman now pays is enough, and would be

[1] *Quarterly Review*, October, 1892.

ample if the railways were managed economically by public authority in the public interest, as they might be. Even if this were otherwise, the necessity of diffusing the population, on sanitary grounds alone, is inevitable, and it would certainly be better that the working man should pay something more for his suburban cottage than go on paying as much for one or two small cramped rooms, even at the risk of lowering the rents and rateable value of the working-class districts of the metropolis. The question cannot wait for the conversion of the capitalist to proper views on wages.

Every European country has lower fares than our own ; in Austria, Hungary, Belgium, and Holland they are much less. In Berlin it was proposed that the street railways should have an extension of the zone system, equivalent to a reduction of 60 per cent. on the present fares, which would enable the working class to live in houses 40 to 50 per cent. cheaper than in the city.

One of the consequences of this "age of great cities" is that horror of horrors, "the slum." But the same growth of civilisation that gave us this gave in part a remedy—the rail and steam or electricity.

The late Sir G. Findlay (manager of the London and North Western) suggested, as one mode of preventing the reduction of dividends, the extension of the policy "of granting low fares and season ticket rates between all the large centres of population, and within a radius of twenty miles, so as to build up a residential traffic by encouraging the people to live in the healthier suburbs." The President of the Board of Trade (Sir M. Hicks-Beach) three years ago, and again recently, stated his approval of the proposals of the London County Council in reference to "workmen's trains." It is time to act. The companies think they make great concessions in what they do already, but this question of cheap access to the

suburbs they regard as a subordinate and minor part of their duty, almost indeed a matter of grace. There this object, so vital to the health and welfare of hundreds of thousands, will remain unless the Government undertakes the task itself, or compels the companies to do that which under State ownership they would never have had the chance to refuse, but which they now regard as an invasion of their rights and possibly of their profits. As it is, their present attitude stands between a most important social improvement and the people.

"There is," says Professor Marshall, "no better use of public and private money than in founding public parks and playgrounds in large cities, in contracting with railways to increase the number of workmen's trains run by them, and in helping those of the working classes who are willing to leave the large towns to do so, and to take their industries with them." Admirable objects, but impossible with the public roads in private hands.

NOTE B.

PASSENGER TRAFFIC.

London and North Western Railway, 1888. *By* R. PRICE WILLIAMS, C.E.

CLASS.	Ratio %.	Number.	Gross Receipts.		Working Expenses.		Net Receipts.		Per Passenger.			Per Train Mile.			Ratio of Working Expenses.
			Ratio %.	£	Ratio %.	£	Ratio %.	£	Gross Receipts.	Working Expenses.	Net Receipts.	Gross Receipts.	Working Expenses.	Net Receipts.	
									d.	d.	d.	d.	d.	d.	%
1st . .	3·37	1,915,851	14·83	480,780	26·00	469,866	0·75	10,914	60·23	58·86	1·37	5·81	5·67	0·14	97·73
2nd . .	5·87	3,331,935	10·14	328,771	19·00	343,364	1·01	14,593	23·68	24·73	1·05	3·97	4·15	0·18	104·44
3rd . .	90·76	51,531,119	75·03	2,433,485	55·00	993,949	99·25	1,439,536	11·33	4·63	6·70	29·38	12·00	17·35	40·84
	100·00	56,778,905	100·00	3,243,036	100·00	1,807,179	100·00	1,435,857	12·71	7·64	6·07	39·16	21·82	17·34	55·72
Season		51,311		161,583		80,791		80,792				1·95	0·97	0·98	50·00
Totals		56,830,216		3,404,619		1,887,970		1,516,649				41·11	22·79	18·32	55·45
Parcels and Luggage Vans . .				662,467		331,233		331,234				8·00	4·00	4·00	50·00
Mails				184,244		92,122		92,122				2·22	1·11	1·11	50·00
				4,251,330		2,311,325		1,940,005				51·33	27·90	23·43	54·37

CHAPTER VI.

INDIAN EXPERIENCE.

"The refusal to extend Indian Railways on the credit of the State is simply a refusal of a large profit on the investment itself, and a denial to the whole people of India of the far larger profit that investment would create and distribute."—"India," by SIR E. W. WATKIN, M.P.

THOUGH the principal examples of State ownership of railways are on the Continent, this country is not quite without experience of its own. We have in India and our Colonies evidence of its practicability under British rule. In 1892 there were 17,564 miles of railway in India, increasing since 1885 at an average rate of about 900 miles per year. When compared with the 170,000 miles of railway in the United States, with less than one-fourth the population[1]

[1]

UNITED STATES.	INDIA, INCLUDING NATIVE STATES.
Total population 62,622,250.	Census of 1891, 288,159,072.
Area square miles 2,935,004.	1,481,000.
Density per square mile 21·34.	185·5; and exclusive of the feudatory States, 230.

The Indian railways in 1891 carried 123,000,000 passengers and 26,159,000 tons of goods, materials, and livestock.

The administration of the railways in India for 1890-91 gives the following details:—

	Miles.
State lines worked by companies	8,404¾
State lines worked by the State	4,701
Lines worked by guaranteed companies ...	2,588½
Assisted companies	380
Lines owned by Native States and worked by companies	593¼
Lines owned by Native States and worked by State railway agency	124
Lines owned and worked by Native States	714¼
Foreign railways	58¾

the railway mileage looks absolutely insignificant, especially when contrasted with a density of population about eight and a half times as great in India as in the States. At the British Association meeting (1891) Mr. W. C. Furnivall made the singular statement that while the length of line per head in India is $3\frac{1}{2}$ inches, in the United States it is $13\frac{3}{4}$ inches; and that while the amount expended per head in the former country is 11s., it is £32 4s. in the latter.

One cannot resist the conviction that more might with advantage have been done to extend railways in India. Their advantages have been acknowledged by the highest authorities. In 1869 Sir John Lawrence said it was a moderate estimate that they have reduced the cost of transport one-half, that as much is saved to the public as is paid by them to the railways. This is an underestimate when it is considered that the cost of cartage of grain at 6d. (four annas) per ton per mile is a moderate rate, canal or bullock transport even more, while by rail $1\frac{1}{2}$d. (one anna) is more than the average charge, and coal and grain are carried long distances at rates below $\frac{3}{4}$d. (half-anna) per ton per mile, and in some cases below a halfpenny. So, too, millions of passengers are carried at $\frac{1}{4}$d. per mile (·17 of an anna); and as the third class form 97 per cent. of the whole, it may be said there, as here, that it is they who make the profits due to passenger traffic.

In 1877 Lord Northbrook said that he did not think that anyone "could doubt that the expenditure

Average cost per mile of open railways, £9,500. The total cost is estimated at £180,000,000.

The latest returns (1891-92) give the following :—

	Miles.	Working Expenses.	Net Return.
Broad gauge	10,103	45 per cent.	5·98 per cent.
Metre gauge	7,171	53 „	5·04 „
Special gauges	288	64 „	5·76 „

on the Indian railways was one of the most profitable investments that ever was made by a great nation." Mr. J. M. Maclean, M.P., said "there was practically an unlimited field for railway construction in India. Those hitherto constructed had resulted in miles upon miles of barren and unpopulated country being turned into fields of wheat, supporting and giving employment to a thick population. . . . The railways had had a beneficial influence in breaking down the barrier of caste." Railways are killing it and many other Indian superstitions, and the Brahmin may now be seen sitting next the low-caste native whom formerly he would not approach. In short, however great their cost, it is amply compensated by the public advantages, the development of the country, and the increased protection against the frightful famines to which this great country has often been subject, and through which millions perish.[1] The annual additions to the railways compare unfavourably with their increase in the United States and in our Australian Colonies, where 5,000,000 of people possess 12,000 miles of railway at a cost of £120,000,000. Nor does it compare with Canada, which, with a population of about 5,000,000, has 14,000 miles of railway.

There is no country in which the railways, taken

[1] Sir Wm. Wedderburn, Bart., in a valuable paper read at the Society of Arts, April 28th, 1892, recommending the introduction of Agricultural Land Banks in India similar to those on the Continent, says that of the 222,000,000 of British subjects 80 per cent. are dependent more or less directly upon agriculture, and refers to the great poverty of vast numbers of the population in this country of "almost boundless agricultural wealth . . . a fertile soil, an unfailing sun, with abundant labour skilful and cheap."

It may be difficult to prevent poverty and even famine in a country that adds over 3,000,000 yearly to its population, but facility of communication, besides leading to the cultivation of neglected districts, causes a better distribution of food between the more and less fertile regions.

as a whole, have been constructed with more economy, or, having regard to the conditions to be dealt with, offer better present financial results or a more encouraging prospect for the future,[1] and this great improvement which has taken place in the trade and condition of the people is more due to the railways than to any other single cause.

That more has not been done is in part due to the *laissez-faire* doctrinaires who have had too much influence in the Government of India. A minute of the India Government, dated Simla, January, 1883, made an arbitrary division between commercial and military railways, though to a great extent each practically serve the same purpose. It assumed that the former would pay without a Government guarantee, and that State assistance was needless. As Colonel Conway Gordon (Director General of Indian Railways) said : "The whole history of Indian railways is one long and unsuccessful attempt to get railways constructed without a State guarantee." Hence numerous valuable lines, approved by the India Government itself, have not been made, and reams of useless despatches showing "how not to do it" have been issued instead.

A primary reason assigned for this tardiness in extending railways is that they do not pay the interest on the cost of construction, and in fact entail an annual loss. So far from a real loss, the aggregate earnings of all lines in 1891 were $5\frac{3}{4}$ per cent. on the total capital outlay, and they pay better than in England itself. In a memorial addressed to the Secretary of State for India (Lord Cross) in 1890, it was pointed out "that three-fifths of the loss incurred on the open and unopen State railways have been undertaken for purely military purposes, and were not expected to be remunerative

[1] "Finances and Public Works of India," by Sir John and Lieut.-General Richard Strachey, p. 104.

lines. The loss, however great, is trifling compared with the improvement in the land revenues and in the general productiveness of other taxes which is the result of the introduction of railways." However necessary the military railways constructed to defend our North-West Frontier may have been, it is surely unfair to measure the lines constructed for industrial and commercial development by such a standard. Though the Government has made some military lines regardless of commercial profit, they have been most useful in the protection of the Empire. As a slight instance, in the Afghanistan campaign (1878–80) a single railway train did with comparative ease in one day of sixteen hours what it would have taken 2,500 camels to do in a fortnight.

This, however, is a minor cause of loss, if that be loss which protects the country from aggression. But the principal loss is due to the system upon which the capital to make the lines has been raised. Instead of the State raising the capital on its own credit, it accepted the offers of British capital from companies prepared to advance it, in consideration of receiving a guaranteed interest at first of 5 per cent., then of 4, and latterly of $3\frac{1}{2}$ and 3 per cent. In the early days of Indian railway enterprise the risks were not known, and therefore the terms were perhaps not exorbitant. It was certainly better that the railways should be made then, as it is better that they should be made now, under guarantees to companies rather than they should not be made at all. It would have been better still if the Government had made them *without* the companies. Even though loaded with the guaranteed interest, they do not pay badly, but would pay much better if freed from it. Sir John Strachey said that so far from public works in India creating a loss, the State railway and irrigation works,

after paying all charges, made a profit. On the guaranteed railways the loss was caused by the fall in the value of the rupee. While the earnings are in silver, the companies have to be paid in gold. But for the loss thus caused, the railways would have paid nearly $5\frac{1}{2}$ per cent.[1] In fact, India and Germany are said to be the only two countries in the world where railways *on the average* earn over 5 per cent. By borrowing through English companies, what might have been a highly profitable transaction has been made to appear as a loss of over 1,250,000 sterling annually. Even as it is, the growth of profits in a few years will, it is thought, more than compensate the loss on exchange, and the increase of the Government revenue is said to be four times the loss. Sir Charles Berhard said: "The Government had spent altogether something like £40,000,000 sterling in thirty years over and above the railway earnings to keep the railways going, but the consequent advantage to the country was infinitely greater . . . . and was tantamount to putting into the pocket of the Indian producer quite £40,000,000 sterling in one year."[2]

No one foresaw the depreciation, apparently an increasing one, that would take place in silver, and what might have been a fair bargain if silver had preserved its value in relation to gold, turned profit in earnings to loss in exchange. There was further depreciation in silver in 1891, but the increased earnings compensated for it. It is a strange comment on human wisdom that the welfare of nearly 300,000,000 of people should depend so greatly upon the fluctuations of one metal used for the exchange of commodities—fluctuations in silver which whether due to variations in its production, to American legislation, or to speculation, are a loss

[1] "India," 1888, pp. 137—139.
[2] "Journal of Society of Arts," April 5th, 1889.

to those whose incomes are paid in a medium 38 per cent. below nominal value.[1]

To guarantee a fixed interest, whether the line will pay it or not, is a rather one-sided bargain, because if the line does not pay, the State still must pay the interest for the agreed term, and if the line pays well, the State gets a very small fraction of the profit, generally half the surplus after the company has received its guaranteed interest and the other half of the profits. By means of the State guarantee the companies also obtain capital cheaply, and some of them have raised debenture capital at 3¼ per cent., and none have paid more than 4 per cent. for several years. If, as is stated, there is an annual loss to the State on the Indian railways of over a million it would appear that the State would make a better bargain if it found the capital and kept the whole

[1] "The truth is that railway development on its final scale in India, like the development of every other branch of Indian enterprise, is now awaiting some settlement as to the future of the rupee. The currency difficulty underlies the whole situation. . . . . The question, however, does not only concern the British Government and British capitalists in India. The native population—that is to say, the great mass of consumers and producers—are the class whom in the long run it most vitally affects. A statement has repeatedly been made, and was lately reiterated by an acknowledged authority in India, that the present scarcity is, and that all recent scarcities have been, intensified by the depreciated state of the currency; that, apart from natural causes, there are currency causes at work which constantly tend to send up the price of grain in India to rates which mean chronic insufficiency of food to the landless labouring population, and which in bad seasons intensify the natural scarcity into an artificial famine. The foreign purchaser can now buy fifteen rupees' worth of grain for the sovereign, which formerly bought only ten rupees' worth of grain. But it is stated that among the landless labouring classes wages have not risen in the same proportion; that, in fact, the poor labourer has to enter the market with his former ten rupees against the foreign purchaser's fifteen rupees."—*Times*, March 8th, 1892.

profit for Indian benefit instead of needlessly bestowing it upon the British shareholder.[1]

Sir Edward Watkin says:—

"It is obvious that the Indian State could raise railway loans in perpetuity, in gold, at 3, and on 99 years' terminal annuity at 3¼ per cent., or perhaps less. This is at least 1 to 1¼ per cent. less than would be demanded by 'assisted' private enterprise; and to adopt the former, means that the State gets for the same annual charge more than five miles of railway if it finds its own money, and less than three in the case of 'assisted' private enterprise."

[1] "The interest charges for the East Indian, Eastern Bengal, and North-Western Railways include annuities paid in England, in which is included a contribution of about 32½ lakhs of rupees for a sinking fund that is meant to reproduce the capital at the expiry of the period for which the annuity is to run, so that on the whole the net loss to the State during the year from the working of the entire Indian railway system may be taken at something over 6 lakhs of rupees.

"If interest on lines under construction were excluded from the gains and losses to the State from the working of the entire Indian railway system in 1891-92, the results would show a *net gain* of 19 lakhs of rupees.

"The loss on guaranteed railways is mainly attributable to the comparatively high rate at which the guaranteed interest had to be paid. Under its contracts with guaranteed railway companies, the State has to pay interest at the guaranteed rates until the contracts terminate, and it is consequently unable to obtain any advantage from the increasingly easy condition of the money market; that is to say, where the State could now raise money at a little over 3 per cent., to pay off loans raised at higher rates of interest, it has still to continue to pay interest at or near the high average rate of 4·8 per cent. on the capital raised by the guaranteed companies; and now, owing to the fall in exchange, the amount of rupees which have to be remitted to England to pay the sterling interest charges is equivalent to a payment of interest of nearly 6·4 per cent. on the total capital raised converted at par."—(Administration Report of Indian State Railways, 1891–92, p. 7.) The total charge for exchange, which was in 1881-82 Rs. 2,988,000, has been gradually increasing until in 1892-3 it amounted to Rs. 8,224,000.

"I am told that guarantees in gold of 4 per cent. and a quarter of profits, of 4¼ per cent. in gold, and of 4 per cent. in gold, with an addition of one quarter of net profits, have been given. If that be so, the State gets, clearly, much less line for its guarantee than it does for its own money. Who will defend this waste and loss?

"It will thus be seen that I am opposed to any more tinkering at private enterprise, and advocate the extension of railways and other public works also, in the most economical and efficient way, viz., by cheap capital, founded on the undoubted credit of the State; and through the agency of the efficient and all-powerful and experienced executive of the State, rather than by the wasteful system of raising capital on indifferent credit, and by the weak and inefficient (in fact, totally inadequate) executives of the individuals and associations who pester the Indian State for concessions. I want to see the whole benefit of the capital and property of the State going into the coffers of the State."[1] This is, we think, a much more rational procedure than the suggestion of increasing the railways by further guarantees to English investors, though in the beginning no doubt these were useful. A still worse proposal is to sell the Indian railways at 25 years' purchase and pay off part of the Indian debt. Worst of all, is the proposal to hand over for *nothing* a considerable length of open paying line to any private company, which would make a corresponding railway extension in any part of India! The non-success of this policy in Canada should prevent its repetition elsewhere.

When the poverty of the vast majority of the natives is considered, there seems no margin to give away profits that would be better expended in

[1] "India," by Sir E. Watkin, M.P., p. 21.

extending the railways, or other improvements.[1] Better that the profits should remain in India and help to enrich the country.

"In the financial interests of India, therefore, it will *primâ facie* be better for the State to become the owner of railways, undertaking their construction with money borrowed at the low rate of interest which its credit permits, and receiving the excess of the profits over that interest, instead of allowing those profits to enrich foreign capitalists."[2] The same authorities point out the temptations to lavish expenditure, the tendency of a guarantee once established to expand with the growth of traffic and consequent increase of capital, and then say, "Comparing any possible system of guarantee, even for a limited term of years, or on a limited capital, with State construction from borrowed funds, it may confidently be said that the former will be more onerous than the latter." If the State makes its railways, it gets them at cost. If it hands them over to companies, it must pay extra profits for management; and though it provides for their

[1] Some lines, such as the East Indian, the North Western, and the Rajputana Malwa Railways have been very profitable. At the last half-yearly meeting, December, 1891, of the Great Indian Peninsula Railway the report stated the number of miles worked had been 1,491½, and the gross receipts had amounted to £2,652,772; the working expenses had been £1,050,919, and the payment to Government on account of leased lines £29,212, leaving a net profit of £1,572,640, or a dividend of 7¾ per cent. per annum.

The Bombay, Baroda and Central India Report, December, 1891, showed a dividend of 7¼ per cent. besides a payment to Government, and leaving a good reserve of undivided profit for future contingencies. Its total net revenue is 9 per cent. In the case of the Great Indian Peninsula and the Bombay and the Baroda lines, the State gets half of the surplus profits above 5 per cent. In the East Indian Railway the State takes four-fifths of the surplus profit.

[2] "Finances and Public Works of India," by Sir John and Lieut.-General Richard Strachey, p. 406.

ultimate reversion to itself, it pays a premium for the privilege.

Moreover, according to the evidence given before the Parliamentary Committee (1884) the policy of the India Government was formerly "to leave to private enterprise those lines which are commercially most attractive, and to construct either directly by the State, or indirectly through the agency of companies, those which are relatively speaking unprofitable, but which are indispensable for protection against famine or for other urgent purposes." To give the State the worse and the companies the better paying lines, is hardly just in a comparison of the merits of the respective systems of State and company control. Sir John Lawrence justly condemns "the arrangement under which the Government can derive no profit whatever from the most successful railway, while it bears the entire loss of those which do not pay." "The whole profit goes to the companies, and the whole loss to the Government. Why, he asked, should the State be placed in so false a financial relation? Even when the State obtains a small portion of the surplus (if any), it is absorbed in the expense of control and supervision, which, though made in the interest of the State, is not less an advantage to the companies, situated as they are thousands of miles from the business they are supposed to manage."

In 1869 the system of guaranteed lines was abandoned, and the new lines up to 1881-82 were State lines. Then another turn of the wheel took place. Indeed, the system of administration seems to vary with the change of Ministers, the exigencies or accidents of party government, as evil in India as it has been in the Australian colonies.

If the State retained the construction and ownership of the Indian railways in its own hands, it could raise much of the capital in India itself, where there is

no lack of wealth;[1] and now, with the experience already gained, India will be able to save much of the more costly English officialism. At a meeting of the Association of Chambers of Commerce (March 25th, 1890) Mr. Maclean, M.P., said :—

"Not only had the railways been a great boon to the country, but skilled constructors and engineers had had to go out there and organise immense armies of labourers, who were now ready for and capable of performing all sorts of work. Thirty years ago it was impossible to get men able to undertake the simplest kinds of work; to-day there were numbers of men capable of laying the permanent way, building bridges, railway carriages, etc., and employed in every suitable capacity in the Indian railways, some were even being used as engine-drivers and stokers on the lines. It was true that nearly the whole of the capital invested in the railways was English capital, but then there were some ten millions spent in working expenses on the lines, and nine-tenths of the people employed thereon were natives of the country."

[1] Sir William Wedderburn, advocating Loan Banks for the benefit of the poor cultivators, says :—

"It is not as though there were any lack of available capital in the country. From the returns of the three Presidency Banks I observe that last year some fourteen crores (that is, 14,000,000 of tens of rupees) were locked up in those institutions. In Bombay there was such a glut of capital that the Presidency Bank had five crores of deposits which it did not know how to use, so that it was driven to refuse municipal and other deposits except as current accounts which have no interest. In the Post Office Savings Banks in Bombay some two crores were locked up, while private banks could get any amount of deposits at 4 per cent." (Society of Arts, April 28th, 1892.) Recent returns show the growth of trade and shipping during the past fifty-seven years, and reveal an immense growth. Since the year 1834-35 the value of British Indian trade has risen from 14,333,333 to 196,250,000 rupees, the increase being nearly fourteenfold. In 1840-41 the imports stood at 8,416,000 rupees; in 1890-91 at close on 72,000,000 rupees. Similarly, the exports were 13,500,000 and 100,250,000 rupees respectively.

At present the Indian railways give employment to over 250,000 natives, and about 4,626 Europeans and 5,936 Eurasians (half-castes). And if the attempt is made, it will be found that in many of the superior duties the natives can be employed with great economy compared with that which brings so many officials from England. The native at least would be content with less, all his income would be spent in India, and he would finish his career there, and not require the usual leave of absence, with final return to England. The contention is that India is governed for English, not for Indian interests; that English rule in India at present involves the political and administrative suppression of the natives; that in the whole of that vast Dependency there was not a single native who occupied a high administrative position. What, it is asked, would be the view of Englishmen if every office of any importance in this country were held by foreigners? The real reason of this was not native unfitness, but that it did not suit the purpose of the English governors in India to admit them to the administrative positions. This may have been so in "John Company's" days and the evil traditions they left behind, but there is now a sincere desire in this country to improve the condition of the people of India, and to give them power in the degree they are fit for it. Macaulay said sixty years since, "It is scarcely possible to calculate the benefits which we might derive from the diffusion of European civilisation among the vast population of the East. It would be, on the most selfish view of the case, far better for us that the people of India were well-governed and independent of us, than ill-governed and subject to us—that they were ruled by their own kings, but wearing our broadcloth and working with our cutlery, than that they were performing their salaams to English collectors and English magistrates, but were too ignorant to value, or too poor to buy,

English manufactures." (House of Commons, July 10th, 1833.)

As to whether the State can construct and manage railways in India as economically as private companies, conflicting statements have been made, and examples might be cited of both kinds.[1]

Much evidence was taken in the East Indian Railway Committee on the question of State and company ownership and working. One high authority, Mr. (now Sir) Juland Danvers[2]—whose judgment is

[1] It is said in favour of companies that the South Indian and Delhi, Umballa, Kalka lines, were cheaply constructed and the Eastern Bengal and Oudh-Rohilcund lines were cheaply worked. The Eastern Bengal earned from 9 to 11 per cent. in the last years of the company's management, but only 6 to 7 per cent. in the first years after purchase by the State and management of Government officers. The Burmah lines constructed by Government have been very successful. Before the State bought the East Indian Railway the company worked it at 29 per cent. of the gross receipts, which increased to 32 per cent. and upwards in the hands of another company working as agents of the Government. There are instances of both company lines and State lines that have been managed badly. The Assam Railway Company received concessions it could not utilise for want of capital, and consequently the coalfields of the district remained for many years unworked. Such instances prove little unless the particulars are investigated.

[2] Sir Juland Danvers, Secretary in the Public Works Department of the India Office, has just retired after fifty years public service. In the thirty-three years since India passed from the India Company to the Crown, he has, says *The Times* (March 8th, 1892), "been the permanent adviser of Her Majesty's Government and the chief motive power in England in the extension of railways and telegraphs in India. Many a battle for the material development of India has been fought in that third of the century; and it is in no small measure due to his technical knowledge and strength of will, but above all to his patience and tact in dealing with the various boards of direction in this country, that those battles have been so uniformly won.

"During his connection with, or his direction of, Indian railways under the Company and the Crown, Sir Juland Danvers has seen the guaranteed system of construction initiated, reach its maturity, and give place to the system of State lines. He has seen the system of State lines, which at one time threatened

the more important because, whether fortunately or unfortunately opinions will differ, he had, as an administrator, some power to enforce his views—while thinking that "both the agency of the State and of private enterprise may be usefully employed, preferred that of companies, especially for working." His reasons he thus stated :—

"The advantages of making use of private enterprise, even when assisted by guarantees or subsidies, appear to me to be these : It relieves an already overburdened Government of duties which can be equally well performed by others. It prevents an increase to Government establishments and to pension lists ; it secures more steady progress by avoiding interruptions to which State undertakings are liable. It secures also the supply of money as required, and its application to the special purpose which an arrangement between the Government and a company is intended to fulfil ; whereas war, famine, and other exigencies of State may interfere with the supply of money when most required for works under Government. It avoids the disadvantages appertaining to State agency, which is liable more or less, according to circumstances and to the character of those in authority, to be affected by influences from which a company under proper State and legislative supervision is free. It insures better than any other way the formation of railway systems or administrations of suitable size. It is the best way of securing a healthy competition. Supposing a system of Government agency to be carried out in its entirety, a huge State monopoly would be established which would not be advantageous to the country, or conducive to the interests of the various districts traversed. Upon the whole, therefore, I think that under suitable legislative enactments and with fair competition the best results will be secured by employing companies as far as practicable."

He admitted that while we have admirable examples in India of lines being well managed by State

to supersede altogether guaranteed construction, gradually find its true sphere and function in the Indian railway network. He has watched the slow and difficult development of the two conflicting systems of State and guaranteed lines till they amalgamated into their present form of private enterprise in Indian railways, stimulated by a limited State guarantee, and directed by a modified State control." The next change will perhaps be to control by the India Government in India itself.

officers, he feared that in the long run officialism or over-legislation will be found to be inseparable from State management, and this is incompatible with commercial principles.

In an address at the Society of Arts (March, 1889) Sir Juland Danvers said, "More railways are required (in India), and it is hoped that private enterprise will step in and provide what is wanted." Rather a sanguine hope if, as Mr. Holt Hallett stated in the same discussion, 15,000 miles of railway were so distributed that four-fifths of the area of the country had barely 4,000 miles; in fact, "hardly the fringe of the population had as yet been brought within their influence." Commenting on Sir Juland Danvers' hope, Sir Edward Watkin says (*a*) That private enterprise will not "step in," except on wasteful terms, leading to India acquiring three miles of railway where she ought to get five at the same annual interest charge; (*b*) that if private interest did "step in," it would do so slowly, extravagantly, and on no single concentrated system; and (*c*) that, as a rule, what is called "private enterprise" in India has been, and always will be, a failure as contrasted with the combined action of the State, with its perfect credit and the thorough organisation of its executive."[1] Nor is Sir Juland Danvers very consistent in his adherence to his own principles, for he says that on the Indian railways "excessive competition will be avoided by proper regulations against undue preference and by establishing minimum rates, below which companies and administrations will not be allowed to charge. A further security will be found in the fact

[1] "India," p. 31. Even Mr. Kirkman, a vigorous opponent of State railways, concedes that "Government control of great affairs, including railroads, is necessary and proper among a non-commercial people like those of India." But he looks forward to the day when it may relinquish control, and its people be fit for such duties. ("Non-commercial" is a term much wider than the people of India.)

that the Government, who from the necessities of the case have a deciding voice in the construction of new lines, will protect its own interests and those of the country by preventing the creation of competitive lines which are not warranted by the requirements of the country. Competition will then be regulated by distance, by rates within a minimum, by economy of working, regularity, and good management, and by the charges and dues at the different shipping ports. The *laissez-faire* system will not be applied to India as in America"(!)

Devolution of the duty of managing railways, with all the mass of details involved therein, is desirable, nay absolutely essential. But the question is, In what way is a public company the best machinery on which to devolve that duty? What control can a body of shareholders and their directors exercise on management? Little enough even if they were in India itself; none at all if in England, and in either case they must act through paid agents, which the Government is as competent to select as a company can be.

Experience shows that to conduct monopolies so as to be at once satisfactory to their shareholders (*i.e.*, "compatible with commercial principles") and likewise with the public interest is difficult, almost impossible, and never without the most rigorous State control. Even with that check, if a system of divided responsibility succeeds with railway management, it is the only instance of the kind, and has succeeded nowhere else. Company managers of Indian railways, who know that the superior authority and paymaster is in London, are not likely to be very amenable to the control of Government officials whose interest and responsibility are only secondary, and who sometimes by not seeing defects may save themselves trouble. When the State is alone responsible, it knows the limits of its obligations; but with a company in

partnership with it the former has the temptation of private interests to promote expenditure, and in the result the State officials will not always be able to control the outlay.

By the dual system of joint company and State management the State may lessen, but does not remove, its responsibilities. It has to take care that these monopolies are not abused, to the injury of the public, by high rates and fares, by wasteful competition with rival lines, or with water and road traffic ; also that the lines are efficiently constructed and kept in repair. It has in India at least to do so much that it might easily do all, and not need to share profits with distant shareholders and boards of directors. The joint system, but for the vigilance of our administrators, would have been worse than it is.

Whether a Government guarantee to English investors was formerly necessary or not, it is now clearly unnecessary, and ought not to be continued outside of India itself. Her wealth is much greater than at the period when her earlier railways were made. Her princes, nobles, and capitalists have been investing of late years to a large extent, and they would lend capital direct to the Government or to companies to any needful amount. The Report of the Bombay Chamber of Commerce (1892) says that "there never has been a time in the financial history of India when money could be obtained by Government for the development of railways on more favourable terms than the present. With 4 per cent. rupee paper at, or in the neighbourhood of, 7½ per cent. premium, and the rate of discount in the markets of Calcutta and Bombay at 1½ to 2 per cent., a loan for railway construction would be taken up with avidity both here and in England, where a strong feeling in favour of a more vigorous policy in this respect has been steadily gaining ground of late." The same report calls attention to the delay

in the construction of profitable railways, and while "admitting that in the case of projects likely to give such profitable results as the three in question (in Northern Gujerat) it would be for the advantage of the country at large to undertake their construction with public money, the advantages to be derived by the speedy development of the district are so great that they would gladly see Government availing itself of private enterprise rather than the lines should be delayed by a discussion of ways and means. . . . The wide divergence between promise and fulfilment has never been more conspicuous than now, when, with evidences of possible famine in numerous districts, the comparatively insignificant extent of other than purely military and strategical lines of railway under construction is specially noticeable."

The Chamber points out that though enormous tracts of country are unprovided with the means of transport, and existing lines show a large and increasing profit, the Government will neither make the lines nor permit anyone else; and years are passed in mere correspondence leading to no result.

Owing to the valuable principle that the Indian railways revert to the State, a magnificent property will ultimately come into its hands. Who is to manage them? Are they to be leased continuously to distant companies, because we cannot find a Government as competent as Germany, Belgium, or our Australian Colonies to manage them on the spot and in the sole interest of the people of India, without sending their profits, for the benefit of English investors and boards of directors, to this country?

As to the objection to centralisation, that with State ownership of railways the central authority which is theoretically responsible for its officials cannot discharge that responsibility; that real power rests with underlings; and that great masses of detail fall on the central Government, the answer is that if

the control of a board of directors in London had any *practical* share in the management of an Indian railway there would be more force in the objection. But the railway boards even of English railways have little share in their practical working, how much less in a railway 7,000 miles distant! They form the fifth wheel of the carriage, and have to rely in England, as in India, on agents and managers.[1] The State can obtain these as readily as the companies—often more easily, as the former is a more tempting service, coupled with the prospect of more permanent employment, possible promotion, and a pension at the end. The pension element, which is urged as an objection to State ownership as leading to increased burdens on the public from which companies are free, depends upon the contract, and is not experienced on colonial or other State railways. If granted, the State obtains thereby its servants at a lower rate on account of pensions for superannuation, and surely those who spend their lives in its service should receive the means of living when no longer able to serve it. That companies, owing to their changing constitution, cannot do this, is not an advantage to them, but the reverse.

While the central authority fears to overburden the official organisation, it does not avail itself enough of a system which avoids this danger (if such really exists), and does not need the aid of London boards of directors, viz., to decentralise and manage Indian public works by and through its own local governments so far as they are competent to undertake it.

As to the *efficiency* of the two systems of company

[1] Mr. W. M. Acworth says, "The London and North Western Railway has 1,800 miles of line and 650 stations, on whose maintenance it spends over £1,000,000 a year, and the committee charged with their supervision consists of ten members, and meets for an hour or so ten times in the year. In other words, the whole of the executive work, however important, is dealt with by the permanent officials in their almost unfettered discretion."

and State management, Sir John Lawrence's testimony, though old, is decisive. He says, "The history of the actual operations of railway companies in India gives illustrations of management as bad and extravagant as anything that the strongest opponent of Government agency could suggest as likely to result from that system. Some of the best-constructed and most economical Indian lines have been carried out entirely under departmental management, in a manner which differs in no respect from that commonly followed on Government works. Many of the very largest railway works have also thus been carried out in all parts of India. So far as contractor's agency is desirable, it is quite as much open to Government management as to that of a company; and the instances of flagrant failures of contractors under the Indian companies are so notorious as to leave no ground for thinking that in this respect the Government could manage worse."[1] Experience in this country is not proving favourable to the system of contracting. In numberless public works under local authorities it has been found fruitful of jobbery and bad workmanship, so much so that the London County Council has decided to do its great works itself. Yet the Council has not the advantage possessed by the State of having a trained staff of engineers to protect its interests.

The arguments for the State construction and ownership of railways in India resemble those recommending national railways here, with the additional advantage that they are confirmed by practical experience. The Indian railway system when first created by private companies under guarantees "was a practical failure," so much so that in 1867-8 Lord Lawrence organised a State Railway Department,

[1] Minute by His Excellency Sir John Lawrence, Governor-General, dated 9th January, 1869, p. 353. ("Report of East India Railway Committee, 1884.")

which was further developed by Lord Mayo, and was "an improvement upon almost haphazard construction of guaranteed lines." It was admitted by some of the witnesses that when the Government had provided itself with an experienced staff, it managed the railways not only as well as the guaranteed companies, but better, as the latter were necessarily in the hands of agents, who needed the supervision and assistance of the Government staff. The right to purchase the railways by the State was insisted upon, or provision to secure this power to be exercised at a fixed date, otherwise the State would have to purchase them hereafter at an increased cost, also that private unaided enterprise was not likely to extend the railway system in India, that the attempt to do so had very indifferent success, and without a guarantee was almost impossible, even though the land was given.

There seems no reason now for a State guarantee to English companies, because the State itself could raise in India and here together all the capital needed, by means of its own guarantee, and at a cheaper rate than would satisfy any company. The undesirable nature of these contracts to pay interest "operates of course in a way which, when there is any deficiency in the net receipts, is identical with a liability to pay interest on ordinary debt. . . . In all cases they are such as to make it to the interest of the Government to exercise the power of purchase, which is among the conditions, at the earliest date possible.[1] While any substantial scheme for constructing a railway by private enterprise should be favourably received, among the conditions "should invariably be found an arrangement for the ultimate transfer of ownership to the State, on equitable terms."[2]

[1] "The Finances and Public Works of India, from 1869 to 1881," by Sir John and Lieut.-General Richard Strachey, p. 128.

[2] Ibid. 412.

"In the early part of 1892 it was announced that the

So little did the Government recognise the advantage of State ownership that when in 1870 the Secretary of State for India had the right to purchase certain great and profitable railways, he abandoned it! It was the London Government, and not that of India, that was responsible for this great mistake through which that country suffered, while all the State received instead was half the surplus profits after 5 per cent.

In this case (the Great Indian Peninsula, Bombay and Baroda, and Madras Railways) it is said that owing to a misconception the Secretary of State gave up his power to purchase, and cannot exercise it again for twenty-five years. "The money value of the loss caused by this error can hardly be estimated at less than several millions sterling, but it is now beyond remedy, and all that can be done is to take care that no such blunder is again permitted."[1]

What the Government could, but did not, do is

Assam-Bengal Railway Company was formed to construct, maintain, and work, under the supervision and on behalf of the Secretary of State for India, a system of railways which will connect the districts of Sylhet, Cachar, and Upper Assam with the Port of Chittagong, and will bring them into communication by water with the existing railways in Eastern Bengal. The railways will be on the metre gauge, and will extend from Chittagong to join the line of the Assam Trading Company with branches to Chandpur, Silchar, and Gauhati. Interest is guaranteed by the Secretary of State for India in Council to the company on £1,500,000 at the rate of £3 10s. per cent. per annum until 30th June, 1898, and thereafter at £3 per cent. per annum until the determination of the contract, when the capital would be repaid by the Secretary of State for India to the company at par, in accordance with the provisions of the contract. Net surplus profits will be divisible between the company and the State. The total cost will be £5,500,000 and the balance of £4,000,000 would have to be provided by the Secretary of State or under his guarantee."

[1] "The Finances and Public Works of India, from 1869 to 1881," by Sir John Strachey and Lieut.-General Richard Strachey, p. 129.

exemplified by its wiser action in the purchase by the State of the East Indian Railway in 1880. The State gave the company an annuity of £125 at £4 6s. per cent. for each £100 of their capital (£26,200,000) and, taking over their debentures of £4,450,000, a working lease was given to the company, with results to the company which appear, according to their latest reports, to have been satisfactory.

The result to the State from this transaction was, first, a profit of £260,000 in the year, which did not include the repayment of the instalments of the purchase money (averaging £440,000 per annum) and thus the whole advantage would be £700,000 yearly. Then there is the yearly income from the railway, also estimated at £700,000. This "will go on increasing as the receipts of the railway improve, and at the end of the term of seventy-four years, with the lapse of the annuity, the Government, having completed the purchase of the railway, will come into the receipt of a clear income which cannot be less than £2,500,000 sterling, and will probably be much more." [1] It is one of the most economically worked lines in the world.

When the first East Indian Railway Company refused an extension of their contract on terms similar to those accepted by other great railways, the Government, in buying it, handed its management over to a new company working as Government agents. Lord Salisbury, then Indian Secretary, did not question the possibility of working it "through Government agency in a thoroughly satisfactory manner" (then why share profit with an English company ?), but he feared the too great expansion of our Indian establishments, and the overtaxing the executive there, and expressed a hope that the East Indian Railway might be entrusted to a private

[1] Strachey, p. 131.

company, which was done, though with less improvident conditions than other bargains of the same kind. Government seems as ready to repudiate duties as public opinion is reluctant to impose them. The cause of the popular feeling is partly due, as Mr. Charles Waring said, "to the prejudice against Government interference, and rests on lingering traditions of unwise interference of which the present generation has had no experience, such as the Navigation laws, the Orders-in-Council, the Anti-combination laws, and protective laws, enacted for the benefit of select classes favoured by the Government." "But the doctrine of political economy which prohibits Government interference with private undertakings does not apply to joint-stock undertakings *which practically become monopolies.*" [1]

Among the witnesses before the committee of 1884 General Strachey, though he preferred company management to that of the State, admitted that the traffic if worked by the State was likely to be larger because it is less anxious to make a big money return, and more likely to reduce rates than a company is. He was sure that the public would derive greater advantages from the State than from the companies. While he would put the construction in the hands of the State, he would leave the working to a company, though admitting State management was "quite capable of being very good," and that "there was no evidence of its being costly."

One great living authority on Indian questions says: "I have no doubt that the Government of India ought (whenever it is able to do so) to exercise the power of purchase reserved to it under the agreements with the guaranteed companies, and that it ought to own as proprietor all the railways in India." This seems to concede the whole question. A London

[1] "State Purchase of Railways," by Chas. Waring, pp. 86, 87.

Board may be useful to protect the interests of English shareholders as against the Government; but if the lines belong to the Government, as this authority desires, the London Board is superfluous. At all events it can do little beyond appointing the officers who do the actual work. If the working staff were appointed by the Government, it is said that it would increase the bureaucracy of India, already large; but under a properly-devised scheme of local government, this evil would be avoided, and would leave the duty to those on the spot best acquainted with the necessities of each district, and with the greater interest in promoting its welfare. The Indian States under *native* administration, comprising 650,000 square miles and 66,000,000 of people, keep their expenditure within their income, expend large sums on works of public utility, such as railways, irrigation, schools, hospitals, etc. The more this is encouraged the better for us and for them.

Major Conway Gordon thus put the case for State railways. For construction by companies he said there were the two advantages—that the Government, once pledged to the contract, could not in a fit of vacillation change its policy, a fault to which it seemed liable; and *next*, that the capital sunk by companies did not appear in the accounts of the Empire as part of the State debt, "although there is no real distinction between the two."

Against these, his objections to company railways, briefly summarised,[1] were that the control of its servants by a board of directors in London is not sufficiently close to secure good results; that, as the shareholders are sure of their guaranteed interest, there is no inducement to economical construction; that companies will only care to undertake lines that are sure to yield direct profit, which will discourage

[1] Select Committee on Eastern Railways, 1884. Major Conway Gordon, questions 4294, 4296, 4299, and 4301.

Government feeder lines for the development of the country, while the indirect returns of the feeder lines would not go to the Government, but to the company.[1] He further urged that as the Government has to supervise the expenditure of what is practically its own money, the dual control leads to friction and delay; that the Government possesses too little control over the officers of private companies, which in native States might lead to political difficulties; that Government has a larger selection and more effectual control over its servants unacquainted with the customs and language of the country, and should be able to construct railways more economically than guaranteed railways, while it can raise the required capital at a cheaper rate than any guaranteed company, however influential; that the capital for State lines can in part be raised in India (at all events, to the extent of a million a year), whereas for company lines it is raised in England, adding considerably to the cost by the loss in exchange. Major Gordon also pointed out what is practically the strongest argument for national railways generally. A private company may in the interests of its dividends charge such rates on certain

[1] Companies have offered to construct feeder lines on condition that the main lines (whether State or company lines) engage to work them for twenty or thirty years at a specified percentage of the gross earnings. The constructing company get the balance of the earnings as their dividend. It is said that this saves multiplication of control and staff, and that the Government is encouraging them. Provided the Government carefully controls the work done by these contracting companies, it may help the more rapid extension of railways in India, but it seems a better arrangement that whoever works the line should also construct it. A memorial of the Chambers of Commerce stated: "There is room in India for many thousands of miles of cross lines connecting and feeding the great arterial railways which are already in full and profitable working order, and as these trunk railways are in the hands of the Government, English capital will not be forthcoming for investment in lines dependent upon them without some guarantee by the State of a fair return of interest."

articles (say coal) "as may tend to strangle the industries in other provinces," or may at least make them cautious in trying experiments towards reducing rates and fares. On the other hand, it may be to the advantage of the country to work at the lowest margin of profit, and it is to the advantage of every country that railways should be worked so as to pay no more than their working expenses, including interest, "all additional profit *being a direct tax on transit.*" This view agrees with that expressed in Reports on Indian Railways that "all charges on transit or inter-communication of the nature of costs should be jealously reduced; all payments in the shape of profits beyond the bare cost of proper service should be rigidly excluded as commercially wasteful and politically mischievous."

The fetish which too often stands in the way of social improvement, the dogma of "private enterprise," is applied too often to cases where it is not applicable. So far as it possibly could, the Government for years struggled to get "private enterprise" in the shape of companies to undertake the work, and it got worse results than those for which it could do the work itself. A large amount of evidence was given to the committee by the highest authorities in favour of Government control over rates and fares, and "not to give it up under any circumstances," and this control is maintained, so that reckless lowering or greedy raising of charges on traffic is impossible. When so much is conceded, one wonders why the committee did not advise the State to take the railways entirely, as simpler than this semi-public, semi-private system of ownership. Only the unreasonable prejudice against State management of railways prevented this.

Nor is there much force in the allegation that what the State does it does badly, and that private enterprise does it better. In the evidence given by

Major Conway Gordon [1] he thus states what the Public Works Department of India had accomplished, and its cost. "It defrays the interest on all its debt for productive public works ; it discharges all claims on account of guaranteed railway interest ; it repairs and maintains all the *existing* roads, bridges, hospitals, dispensaries, schools, court-houses, and public offices ; it keeps up all the costly barracks, fortifications, and military buildings ; it works nearly 11,000 miles of railway ; and it keeps in order all the innumerable irrigation works scattered over a country double the size of Great Britain and Ireland, France, Germany, and Italy all put together, at an average net annual charge, exclusive of exchange, of £2,791,100, and has given the benefits of vastly-improved means of communication, and all the requirements of civilised life and modern progress, to a population of about 198,000,000 of people at an annual charge of 3¼d. (3·38d.) per head. We hope," he continues, "to be able to do the whole work for nothing, that the revenue produced by our investments," *i.e.*, the receipts from railways and irrigation works, "will enable us to run the whole public works business at an insignificant charge to the taxpayer." Higher tribute than this to the service Great Britain has rendered to India it would be difficult to find.

The vacillation and delays of the India (Home) Government is a serious consideration. At times it encourages companies to construct railways, at other times it prefers to undertake them itself. Lines that would be useful and greatly develop cultivation of the soil are delayed because it is undecided who should construct them, whether the India Government, the native Governments, or private speculation. It is said that years elapse in shuttlecock correspondence between the Home and

[1] Select Committee on Eastern Railways, 1884. Questions 3511 and 3512.

India authorities before necessary works are undertaken. It affords a reason against placing railway administration under a system which changes with changing Ministers, and still more against managing such matters in England, which could be much better done in India itself. Government by the India Office would be better if transferred from England to India. There is also needed in the Government of India a larger proportion of the commercial element in its councils, less of the merely official and military element. To use Sir E. Watkin's language, while admiring the Indian railways he says they want *commercialising*, and that the speed of the trains is behind the age, and many of the regulations are too much like those of a military cantonment.

The same writer vigorously denounces the break of gauge which has been permitted. "Whoever proposed the 5 ft. 6 in. gauge for India, for Ceylon, for Canada, and the 5 ft. 3 in. for Ireland, or the 6 ft. for the Erie Railway, was no friend to industrial mankind; and he details his experience in traversing lines in India that should be in connection with a uniform gauge, yet presenting such differences as 1 ft. 11 in., 3 ft. 3 in., and 2 ft. 6 in.[1] Later he addressed the Indian Secretary. Lord Cross, "after much consideration," intimated to the Government of India "his decision that the linking-up necessary to give the metre-gauge railways their full value as a means of through communication shall be carried out." One wonders why so much "consideration" was needed.[2] Sir Edward Watkin suggests that to

[1] "India," pp. 27—29.

[2] Sir Edward Watkin says: "For reasons that have never been publicly stated the utility of the metre-gauge lines has, however, been hitherto considerably abridged by the deliberate refusal of the Government of India to allow through connection of the various groups to be completed on the same gauge. All that was required to link them up into one continuous road was

make the railways of India contribute to the wealth of its people, and enable India to compete with America in the supply of English wants, for which it is much better adapted, and does not erect a Protectionist wall against our own productions, etc., India must adopt American methods. Through rates of transit, "the whole railway system in food and raw material districts should be worked for through rate purposes as one." Then the system of elevators or public warehouses, carried to such perfection in America, which affords facilities for storage of grain, for loading and unloading, for sifting, cleaning, and drying, for transferring it by means of certificates, giving the owner the advantages of a bank, and the principle of which can be extended to jute, cotton, and other produce—wants extending to India. There was not an elevator in all India when Sir Edward visited it in 1888. He asks: "What is the objection, under a paternal government, to the railways of India, the property of, or controlled by, the State, providing the warehouses, the machinery, and all the appliances required? It would pay handsomely to do it, tend largely to develop the resources of the land in competition with competing nations, and might tend to relieve the poor cultivator from the buma, the schroff, and the petty dealer."[1]

the laying down, on already existing 5 ft. 6 in. gauge railways, of a third rail for about 90 miles between Cawnpore, Lucknow, and Byram Ghat on the Gogra River, and for about 40 miles between Viramgam and Wadhwan on the Bombay and Baroda Railway, at a cost in all of about £120,000. The inconvenience, delay, and expense caused by the consequent enforced break of bulk and transhipment of through traffic at the junctions of the two gauges have been considerable, and have been for years protested against by the railway companies and the mercantile representatives interested of Northern and Western India as restricting trade and intercourse in an indefensible manner."—*Times*, July 14th, 1892.

[1] "India," pp. 23—27.

India is not one but many nations widely differing from and antagonistic to each other. Before the time of Lord Mayo, the central power monopolised the sole control of the finances of the various local governments. Under such an arrangement there could be no local interest in the development of public improvements or in their cost. General Strachey devised a scheme of local government, limited at first, but capable of expansion and productive of immense benefit to both the central and the local authority. If the system had been extended so as to give power to each Presidency to construct its own railways, subject of course to control of the central authority (only to care that each district organisation worked in harmony with the whole, dealing only with such questions as the prevention of competing lines, unremunerative rates, varieties of gauge, etc.), the railway system in India would have received a far greater development, and excessive centralisation been avoided. But this was not to be. General Strachey relates that Sir W. Muir undertook a branch railway in the North-Western Provinces. Local capital was raised, a local committee of native gentlemen was formed from the subscribers; it succeeded without imposing any burden on the provincial revenues. Its success stimulated other works of local importance, for which money was subscribed locally, among them the successful Patna and Gya railways. But before this system had become developed and shown "its value, the Secretary of State issued orders which had the effect of arresting all further progress in this direction."[1] An instructive light is thrown upon this passage by a letter from the Viceroy of India, the Earl of Lytton, which, though written many years ago, has only recently been made public through the *Daily Chronicle.* It is dated from Malvern, Sept.

[1] Strachey, p. 151.

22nd, 1881. After some preliminary and personal remarks the letter proceeds: "Wisdom, I suppose, is justified of her children in the long run, but the run is sometimes a very long one. No Indian Finance Minister has ever left to his successor such a splendid financial legacy as Sir John Strachey. No one who will take the trouble to study the finances of India without prejudice can doubt that they are in a position which might be envied by almost any country in Europe. I have the satisfaction, such as it is, of feeling sure that this will be admitted some day, if the financial policy of my administration is not disastrously reversed. But I confess that I contemplate with considerable apprehension Major Baring's adoption of Sir L. Mallet's craze about handing over the public works of India to 'private enterprise.' No such enterprise exists, or can be created at present in the country itself, where the normal rate of interest is 12 per cent. And how would the people of England like to see all their railways and canals in the hands of capitalists living at the other end of the world, ignorant of and indifferent to the conditions of English society and government, yet exercising upon these conditions, through a distant Parliament in which the English people were not represented, a certain irresponsible influence naturally animated and guided only by a view to their own exclusive interests as the proprietors of all the means of inter-communication throughout England? In the Indian railways the Government of India possesses a vast and annually-growing property—an expanding source of revenue not derived from taxation, which exists in no other country—and to me it is as clear as the sun in heaven that the financial prosperity of India will in future depend mainly on the development of her railways and canals. People ask, 'What would happen if the opium revenue were to fail?' I reply,

'Cover the country with railways, and neither the loss of the opium revenue nor anything else need seriously disconcert us.'"

Indian railways have sometimes been pressed upon the attention of Government rather with a view to English than to Indian interests. For over twenty years a "trade-route" to China has been warmly advocated, but as the route proposed was through States that might be hostile, and were at least not under our control, and would therefore contribute little to the internal improvement of India, the Government seems to have had good reasons for delay. The acquisitions in Burmah, commenced in 1824-26, extended in 1852-53, and completed in 1886, will facilitate this object, and we believe the survey is being made. It is said that we have trade rivals who are jealous of our objects, and that no time should be lost if we are not to be anticipated. At the request of Lord Salisbury, Mr. H. S. Hallett has drawn up a project for building a railway from Burmah to South-Western China, which is said to promise many advantages.

In a country which is so universally poor that millions of unskilled labourers are compelled to work for 2d. to 4d. per day, and where in some districts the small cultivator has to borrow at enormous rates of interest from the native usurer, often resulting, according to recent testimony, in the permanent transfer of his land from the cultivator to the money-lender, and transforming the cultivator into a day labourer, it ought to be a primary object to make the railways and all public works needed for the welfare of the people. Were this done, the fear either of another Indian mutiny or scares from threats of Russian aggression might not be removed, but at least the risks of such events would be considerably lessened.

CHAPTER VII.

COLONIAL EXPERIENCE.

"Without railways the Australian continent could only present a coast-fringe of settlement. The prudent extension of inland railways means, in the course of time, the full control of a continent's resources."—*The Times.*

BRITISH experience of State railways is not limited to India; our Australian colonies have set the example of creating and owning their lines. The railways, with one or two unimportant exceptions, belong to the State, though constructed by private firms, under the supervision of the Government engineers.

Altogether the seven colonies of Australasia have invested above £120,000,000 in nearly 12,000 miles of railways,[1] about two-thirds of their total indebtedness; and although it looks a large sum for so small a population, it has been on the whole a wise expenditure, notwithstanding some considerable exceptions.

[1] In France and Germany there is about one mile of railway to each 1,800 of the population; in America, one mile to each 353; Great Britain, one mile to each 1,908; and Australia, one mile to each 373. Great Britain has one mile of railway to each 6 square miles; and Australia one mile of railway to 394 square miles. Mr. R. M. Johnston (Tasmania) gives the following comparisons:—

	United Kingdom.	Australasia.
Population per square mile	312·00	1·20
Public revenue per head	£2 0 11	£7 10 10
Capital invested in railways per head	£22 17 5	£26 18 4
Railway net receipts per cent. to capital invested	£4·06	£3·08

There is no doubt that in some instances the investments in railways have been made too fast. In Victoria, for example, with a population of little over a million, there was expended in public works in

1888–89 ... ... £3,990,000, and in
1889–90 ... ... £4,640,000

most of it on railways. These were made too much in advance of the population to support them (considering that about two-fifths of the inhabitants live in towns).[1] Indeed, it was said, we know not with what degree of truth, that one railway passed through a country in which there is only one acre of wheat; another traversed a district of 180 square miles, whereof the total area under cultivation is 87 acres, the population of grown men about 100, the total value of cereals grown £595 per annum. In 1891 at one of the railway stations the whole revenue for the year was 1s. 3d.! Five other stations came well under £3 each, four under £4, and almost forty under £20 for the twelve months! Some of these, however, were country stations just opened when the year closed, and for some of them the tickets were taken at the starting-points. "New South Wales," says

[1] The same phenomena are exhibited in Canada and South America. The attractions of town life form a great hindrance to the distribution of population. It is charged upon the colonial Governments that the bribes they offer in high wages and other forms of public waste have caused the "true function of the rural population in Australia to be to work that the metropolitan population may play." Mr. Johnson states, however, that the growth of the rural population in Australia is the same in ten years as in the United States (*i.e.*, about 27 per cent. of the total increase). Doubtless an undue proportion of the population is in the towns. In New South Wales, with a population of 1,134,000, Sydney contains 386,000. In South Australia, of 315,000, Adelaide contains 133,000. In Queensland, of 393,000, Brisbane contains 93,000. In Victoria, with a population of 1,140,000, Melbourne has 491,000, and the Legislature has been asked to consider proposals to promote village settlements.

one unfriendly critic, "has a line which runs for 500 miles through a country carrying only one sheep to three acres, and having no long-distance traffic." Other cases of the same kind have occurred. So it has been elsewhere—the United States, Canada, South America, not excluding even this country, have made lines that never have paid and possibly never will. It is not to be wondered at that Australia, with everything to learn, should have made similar mistakes.

A plethora of capital in this and other countries had its share in stimulating Australian loans. Under the influence of party feeling, however, such facts as the above were paraded in the colony and their importance exaggerated. In this country needless alarm was expressed as to the solvency of the Colonial Governments, and their proposals for loans were regarded coldly, although not long before British capital had been readily advanced, almost pressed upon them. As a matter of fact, it was more our own than colonial difficulties that originated this sudden discredit. We have had in this country, prior to the Baring collapse, three years of wild speculation in hundreds of worthless companies, such as African gold mines, Argentine loans, American breweries, &c. Doubt fell at last on the soundest investments, and on colonial railways among the rest.

That the Australians got money too freely and spent it too heedlessly must be admitted. Have we, too, not had our "booms," our seasons of inflation and depression? We have been having cycles of it for over sixty years, and each time with wide ruin, when even good investments could find no buyers. Why should we expect the Australians to be wiser than ourselves? But they have recognised their danger, and give every sign of profiting by it in the future.

Yet there is no doubt that the colonial resources

were quite equal to the responsibilities incurred. The large indebtedness of Australasia is not, as Mr. Johnston points out, debt like our National Debt, which is represented by no commercial asset, but represents reproductive public works, and is no more debt than the £890,000,000 invested in English railways, and "Australia's financial condition is greatly superior to that of the wealthiest country in Europe."[1]

In new countries, where so much depends upon the rapid development of the natural resources, dividend is a very inadequate test until there has been time for development. Thus Mr. Johnston says that 57 per cent. of the lines that had been open over seven years yielded a profit of 4·38 per cent.; and 43 per cent. of the lines that had been open less than seven years yielded 1·50 per cent. The dividends of the railway are a very imperfect measure of its contribution to the wealth of a country. Mr. Johnston gives a comparison of the charge for freight and fares in Tasmania before the railways in 1870 and on the railways, showing a reduction on the former of 82·30 per cent., and in the latter of 59·15 per cent. For the seven colonies he estimates the total saving in 1890 at "15·78 per cent. of the total capital, after discharging all expenses connected with working the railways and the yearly charge for interest on borrowed capital."

Nor is the benefit of our loans solely on the side of the Australians. If this country has aided them by its advances of capital, it has thereby helped to create one of its best customers. Sir Edward Braddon says that Australasia "has amply proved her purchasing power and her trade value to the Mother Country. In a return for the years 1879 to 1888

[1] "The Credit of Australia," by R. M. Johnston (Statistician of the Government of Tasmania), *Nineteenth Century* for April, 1892.

Australasia ranks third (next to the United States and India) among the consumers of British products. Of the total British exports, 9·57 per cent. were taken by Australasia, while Canada took 2·89 per cent." [1] It would not be true to say that for each pound of Australian debt there exists a valuable asset; it is

[1] "Australasia: Its Progress and Resources" (Journal of Society of Arts, May 6th, 1892). In an address delivered by the Hon. G. R. Dibbs, Premier of New South Wales, at the London Chamber of Commerce, he gave the following interesting statistics:—"During the past ten years the trade of the Australasian colonies had increased by 71 per cent., and he saw no reason why it should not continue to increase by leaps and bounds, and add another 71 per cent. in the next ten years. The total trade of Australasia—imports and exports—amounted in 1890 to £132,801,000, which he thought would be considered very large for a population of 4,000,000; and of this amount the trade with the United Kingdom alone represented £56,000,000. The value of the wool exported from Australasia in 1890 was over £20,000,000. The area of land in Australasia under wheat cultivation alone was, in 1890, 3,537,000 acres. The average production of wheat per acre was 9·7 bushels, but New South Wales averaged 13·3 bushels, and New Zealand 24·5 bushels. To bring their raw materials down from their vast territories, one of the most important items of consideration with all Australasian statesmen was railways, and this was a very important point for English people to consider. The colonies had borrowed enormously from England for the purpose of constructing railways, which did not, as in this country, belong to private trading companies. Throughout Australasia the railways, tramways, and telegraphs were the property of the States, and it was for the purpose mainly of constructing these public works that the colonies had borrowed money. Almost every shilling that had been raised in England for the construction of public works had been spent in this country, thus finding employment for English manufacturing interests. The total amount expended on railways in Australasia up to 1890 had been £113,000,000. But every £1,000,000 borrowed and expended on the railways had increased the value of the Government lands by £5,000,000. England had thus had a double advantage from the borrowings of the Australasian colonies —first, by the expenditure of the money in this country, and, secondly, by improving the main security on which it had been obtained."

admitted that they have made mistakes in some of their railway investments; but it would be true to say it of the total, mistakes included. A large part of our advances consisted of rails and machinery produced here, and in view of our lessening foreign trade, it would seem that they could better do without us than we without them.[1]

There was little real ground for panic when the Victorian Government, in a sudden zeal for retrenchment, reduced the public servants, cut down salaries, and, worst of all, dismissed the three very able members of the Board of Railway Commissioners. If the expenditure on public works had gone on a little too fast, the remedy was *rest*. It is not contended that it is impossible to make railways too fast. Our experience has shown us the contrary. In a democratic country controlled by the working man, his vote will be much in favour of public works, and all goes merrily during a large outlay of capital. But in this case, when the reaction set in, and Philip drunk became Philip sober, the prudent resolution was adopted to construct only the lines obviously needed, while the growth of wealth and population would rapidly overtake the investment already made. But all this was perfectly well known to the Victorian Commissioners. In their report (to June 30th, 1891), referring to the loss (not, however, very considerable), they said, "These new railways cannot be expected to yield immediate profitable

[1] "The advantage is a mutual one, and is by no means wholly on the side of Australia. It is as important for England that fresh fields of industry for the employment of her surplus capital should be provided as it is for these colonies to have the assistance of outside capital in developing their natural resources. As a matter of fact, Australian capital wealth is increasing at a much greater rate than the capital wealth of England." ("Lending Money to Australia," by Sir Robert G. C. Hamilton, Governor of Tasmania, *Nineteenth Century*, August, 1892.)

returns, and our present inability to meet interest is due to the fact that we have now no less than £6,000,000 invested in railways which are not, on the average, twenty months old, and that the interest thereon during the past year amounted to £270,000. These facts should insure fair consideration being given to the position." And further, "Such a rapid growth must necessarily severely affect present results; but, as previously stated, a rest in construction for three years, should the past average annual increase in revenue be maintained, would bring about an equilibrium between the net revenue and the interest to be met."

There was no occasion for alarm, only for increased prudence. The same report stated that the total mileage was 2,650 miles. The working expenses 70·05 per cent. of the revenue, and for the six years ending in 1890 the interest on the loans (£6,294,841) was almost paid by the railway revenue, besides permitting reductions of rates and fares to the amount of £800,000. Good wages have been paid to the employés, and improvements for safety, such as interlocking and continuous brakes, adopted. Besides this, within the last seven years the conversion of loans has effected a saving of about £1,000,000, showing the importance of not borrowing capital at too high a rate or for too long a period, and, still more, not to borrow in order to create lines prematurely. The greater part of the Victorian railways are constructed with borrowed capital (£34,782,939), of which a small part (£8,050,000) is borrowed at the rate of $3\frac{1}{2}$ per cent., the rest is borrowed at 4 per cent. (£19,452,132), at $4\frac{1}{2}$ per cent. (£4,989,906), and 5 per cent. (£2,290,900). As the net revenue on the total capital cost in 1889–90 was 4·180, and in 1891–2 was little over $2\frac{1}{2}$ (2·58) per cent., the process of borrowing does not seem to have been a very economical one.

It is no doubt a serious error to borrow money

at a higher rate than the railways are likely to repay, and Victoria is not the only instance.[1] The sound principle is that railways should pay their way, and anything over should go in improving, extending them, and lessening rates and fares. To pay more interest than they earn is to subsidise them at the public cost, which, if sometimes expedient, is dangerous as a rule. Too much, however, has been made of this, if, as Mr. Howard Willoughby points out,[2] "there were no real additions to the burdens of the people, but immense gains to be brought into the account," such as an increase of 900 miles of railway, with an increase of more than £10,000,000 in land values.

Borrowing at too high an interest, however, was not the only error. In Victoria, before Railway Commissioners were appointed, the management appears to have been rather chaotic. There was no proper control, different heads issuing different orders, rolling stock inadequate, and the permanent way in bad condition. The appointment of Mr. Speight, a highly-experienced railway manager, as Chief Commissioner,

[1]

	Railways paid in 1888 per cent.	The Money was borrowed at
Victoria ...	3·80	4·21 per cent.
New South Wales ...	3·50	3·91 „ „
Queensland ...	2·10	4·11 „ „
South Australia	5·26	4·08 „ „

("The Seamy Side of Australia," by the Hon. J. W. Fortescue, *Nineteenth Century*, April, 1891.)

[2] The interest on the Public Debt of Victoria was:—

Year.	Per Head of Population. £ s. d.	Percentage of Revenue.
1879–80	1 3 1	21·30
1884–85	1 6 6	20·22
1887–88	1 6 8	18·21
1888–89	1 6 11	16·82

("The Seamy Side of Australia: A Reply from the Colonies," by Howard Willoughby, *Nineteenth Century*, August, 1891.)

and two assistant commissioners, put an end to this state of things. If State railways are to be successful, similar men must be appointed, and not interfered with, beyond securing due responsibility. The management of railways, especially in a democratic community, should be as free from politics as the administration of justice, and also from jobbery and corruption. To be efficient it must be independent of the fluctuations of political parties. To attain these ends, the colonies of Victoria, New South Wales, and South Australia, Queensland, and New Zealand had taken the wise plan of appointing railway experts as Boards of Commissioners to manage the railways, and the system worked well. When therefore the Victorian Prime Minister, Mr. Shiels, dismissed the three highly competent Commissioners (himself now dismissed), it was a retrograde act. He would have done it without a hearing, and without compensation, if permitted, but the Colonial Parliament would not sanction this high-handed proceeding. He was forced to compromise the matter by the Government formally withdrawing all charges against the Commissioners and giving them a retiring allowance equal to half the salaries they would have received during their unexpired term of office. The charge against them was that they had expended too much money on the railways, the fact being that they built the lines efficiently, as more economical than inferior work. But the cold fit of economy was on, and somebody must be sacrificed. Mr. R. Price Williams, the well-known English railway engineer, who happened to be visiting the colony, found the charge against the Commissioners to be "reckless and unwarranted." He showed that while in 1883 the expenses of maintaining the road were £262 per mile, they had with all the additional traffic been brought down to £171 per mile, a decrease of 35 per cent. in cost of maintenance, and the increase of locomotive accommodation had been only 39 per cent.

"Notwithstanding the increase of mileage, the gross receipts have been maintained, and in the course of a few years, by the development of the traffic, the small additional amount in the working expenses will have disappeared on the present system. The cream has not had time to accumulate."

However this may be, Mr. Shiels managed to make political capital, on the eve of a General Election, out of the financial difficulty, by casting the blame on the Railway Commissioners. A malcontent official was found to get up a case for the hustings, and the cry was loud enough to give the Minister a majority. Fortunately for the colony three other Commissioners were appointed, not less active than their predecessors in suspending premature construction. Their first report (to 30th June, 1892) says, "Many of the new works authorised under various Acts are not at present necessary," and they "have recommended the postponement of additional accommodation at various stations for some years." Moreover, as far as they could, without materially diminishing facilities, they have reduced the train mileage 800,000 train miles per annum.[1] They have amalgamated offices, concentrated the work, abolished unnecessary correspondence and clerical labour, and reduced staff expenses by £70,000 per annum. Under what they correctly designate "the unparalleled depression through which the colony is passing," they are doing their best to

[1] This is in accordance with the recommendation of Sir Robert Hamilton. He says, "The train service in many cases, which is now needlessly great, should be reduced in accordance with the needs of each district upon some calculated standard." He has been "informed, on good authority, that if in all cases where the traffic receipts do not exceed £300 a mile a year, the train service were restricted to a mileage represented by four through trains each working day, ample provision for the traffic could be afforded; and that, with a comparatively slight rise in rates, the lines would in the main become self-supporting."—*Nineteenth Century*, August, 1892.

reduce the railway deficit, and time will do the rest. It cannot be too soon understood that railways cannot, any more than an army, a ship, or a factory, be managed under a *régime* of party contests and by mere politicians. The function of Railway Commissioners is to manage the railway in the best possible manner in the public interest, an object not likely to be secured if they are subject to the will of a Minister himself dependent upon a fluctuating popular vote. Eliminate the politicians, shareholders, and boards of ornamental directors, and the public will derive the full benefit of its railways. Sir R. J. C. Hamilton doubts the sufficiency of Commissioners, and has more faith in the politicians, whom he believes to be honest in the main, and in Parliamentary government. He would, however, have a Standing Committee or Board of Advice, elected by the country for three or five years, to inquire into the circumstances of every district where a line is projected, and whose assent should be necessary. No member of it would have a vote who had a personal interest in a line. All new lines would have relation to the increase of population, and require, as the best safeguard of careful selection and economy in construction, that the railways should pay their own way. In the Victoria railways the five systems into which they are divided give widely different returns.[1]

In Victoria the lines are connected, and also communicate with the seaports. There were two private lines—one of them, which existed for several years, was bought up by the Government at a cost of £1,320,800, and the other was bought by the State in 1860.

One serious error has been made in the varieties

[1]

	Profits per cent
Northern system...	2·55
Western system	2·64
North Eastern system	4·14
Eastern system	loss on working
Hobson Bay Lines	5·82

of gauges.[1] In South Australia they have two gauges, the "costly evils of which are intensified year by year," and the Commissioners complain that while no attention is paid to the question of the unification of gauge throughout Australia, proposals have been made "in sober earnestness" to ameliorate those evils by the introduction of a third gauge. In no adjoining colonies are the gauges the same, and the folly which was once permitted in this country of two gauges, and now in India and in Ireland, is being repeated in the colonies. Federation of the colonies would be assisted by uniformity of gauge.

As the lines approach, the evil becomes more manifest, in the transfer of goods and passengers from one line to another thus rendered necessary. The reason assigned for the adoption of the narrower gauges was the saving of expense, and in the belief that it was better suited for the small traffic likely to be offered at first, and with the intention of substituting more expensive lines later on. But the experience of New South Wales, where the lines have been made substantial and on the standard gauge, shows that this was the wiser plan. The effect is that though a traveller may go by rail from Adelaide to Melbourne (509 miles), from Melbourne to Sydney (576 miles), and from Sydney to Brisbane (723), or a total of 1,808 miles, he must pass over three gauges to do it.

The colonial railways have also another characteristic, viz., that whether from local patriotism or

[1] The following are the gauges adopted :

	ft.	in.
New South Wales	4	8½
Queensland	3	6
South Australia	5	3
	3	6
Victoria	5	3
Western Australia	3	6
New Zealand	3	6

protectionist tendencies, the plant is as far as possible produced in the colonies, and as little of it imported as possible. This has sometimes led to increasing cost, but not to any serious extent. All the lines are well managed in reference to the safety of the lives of the public and of the employés. The colonial reports show the advantages of cheapened rates and season tickets. There is no better use of railway profits than expending them in reducing fares and rates rather than lessening taxation. As Mr. Waring says, "The proper principle, no doubt, is that accounts should balance — that the railways should be self-supporting, and that profits should go in reduction of rates." Nor are the Australian railways subject to the distinction of three classes of passengers. There is one small railway in South Australia running third class trains, but they have been abolished in the other colonies as needless and objectionable, and first and second class carriages are the rule.

With insignificant exceptions the whole of the lines in Australia belong to the State. In New South Wales two of the earliest railways were owned by companies, but in both cases the companies were unable to complete them, and the Government had to take them over. There are now two lines, one 45 miles and one 35 miles, constructed and managed by private companies, but all the main lines have been constructed and are managed by the State.[1] Up to the 30th June, 1892, 2,185 miles were open at the cost of £33,313,000, and 39½ miles of tramway costing £913,644, most of the capital having been raised by debentures, of which over £1,000,000 has been paid off. The profit on working was 3·58 per cent. on the total capital expended, but some of the older lines pay 8 per

[1] The land for the private lines was given by the State, with the right to purchase after twenty-one years.

cent.[1] The average profit may not look high, but is really considerable, taking into consideration that 825 miles, representing £9,500,000, are unprofitable lines, entailing a loss of £311,430 in expenses and interest, which is a burden on the rest of the property.[2] To this must be added 332 miles of new lines under construction and new capital amounting to £2,650,000. Here, as in Victoria, *rest* is needed, and, as the Commissioners say, "how absolutely necessary it is to proceed cautiously with the authorisation of any additional lines until some of the present unprofitable sections of outlying lines are able to pay for themselves."

New South Wales is one of the colonies which adopted the system of putting its railways under the control of three experienced Railway Commissioners, of which Mr. Eddy, an expert from England, was the head. The political element in New South Wales proved itself quite as objectionable as in Victoria. The Government had been overwhelmed with applications for situations. Mr. Eddy re-organised the management, reduced the staff to what was required, and introduced order and economy into the business. Of course he was attacked by false and reckless charges which proved to be groundless, and public opinion sanctioned the new system of management and the cessation of political meddling and muddling. He was exonerated, and with his co-Commissioners was presented with an address of con-

[1] Gross Revenue, Railways and Tramways £3,412,386
Working expenses £2,162,843

Net revenue £1,249,543

[2] Profit in the sense of dividends is no adequate measure of the gain. The average cost of carrying one ton of goods one mile in 1864 in this colony was by road 7½d., but in 1872 it was by rail 3·61d. per ton, and has gradually been reduced to 1·81d. per ton in 1887.

fidence, signed by 20,000 electors, at a meeting of 5,000 citizens of Sydney.

Nor was the success of the change less conspicuous in the progress of the railways themselves. Contrasting the seven years (1882 to 1888), before the Commissioners were appointed, with the four years (1889 to 1892), the results showed that during the former period the *net* earnings did not increase; in the latter period they augmented 56·04 per cent., and tramways 226·15 per cent. The net earnings per mile open in 1885 were £431, in 1892 £546, and per train mile they rose from 2s. 1¾d. to 2s. 10¼d. This increase was not caused by raising tolls In fact there were considerable reductions both in goods and passenger fares.[1] Considering that wages and other expenses are, as the Commissioners remark, much in excess of similar charges in England, the fact that the fares on the New South Wales lines are lower than our own is a striking one.[2] Would the public have received

[1] Charges per ton per mile in

	1879	1891
	d.	*d.*
Coal and Shale	1·25	0·76
Firewood	1·26	1·10
Grain and Flour	1·27	0·66
Hay, Straw, and Chaff ...	2·20	0·46
Wool	2·81	2·49
Live Stock	2·90	1·85
[2] General Merchandise ...	2·66	2·10

Single Tickets.	3 miles.	5 miles.	7 miles.	10 miles.	13 miles.	15 miles.	20 miles.
London Suburban 1st Class	-/6 to -/8	-/8 to 1/-	-/8 to 1/4	1/4 to 1/9	1/9 to 2/5	2/- to 2/9	2/6 to 3/10
New South Wales 1st Class	-/4	-/6	-/8	1/-	1/4	1/6	2/-
London Suburban 2nd Class	-/4 to -/6	-/6 to -/9	-/6 to 1/-	1/- to 1/2	1/3 to 1/9	1/6 to 2/3	2/- to 2/9
New South Wales 2nd Class	-/3	-/5	-/6	-/8	-/10	-/11	1/2

Return Tickets are also less in the same proportions. No 3rd Class on the New South Wales railways.

The London lines referred to are the London and North Western, Great Northern, Midland, Great Eastern, London and South Western, London Brighton, South Eastern, London Chatham and Dover, and Great Western.

the benefit of these reductions if New South Wales had, instead of owning, handed them over to a number of joint stock companies? Or would not the latter naturally prefer higher dividends, to reductions in rates and fares?

The experience of the Colony of Queensland in respect of its railways is instructive. It was proposed in 1882–3 to make a transcontinental line running from the Gulf of Carpentaria right through Queensland, by means of an English company who were to receive, besides a quantity of land, a guarantee from the Queensland Government, which was favourable to the proposal. The people, however, rejected the scheme, holding that if made it should be made by the Government. The total length of railway opened for traffic up to June 30, 1892, was 2,320 miles at a cost of £16,700,981. The revenue for the year ending at that date was:—£1,052,536, less working expenses £639,502, leaving net £413,034 or a percentage of £60 15s. 2d. of working expenses to revenue, which two years previously was £72 16s. 3d. The profit also showed an increase of £150,000 on the previous year, and the net earnings per train mile run increased from 1s. 4¾d. to 2s. 1d. Considerable loss arises from the fact that they possess eleven disconnected railways (many of them very short). The expenditure will be diminished whenever they are united in one system. The Commissioners, who had only been recently appointed, urged, in a previous report, that the construction of new lines be limited to such as will have a fair prospect of giving an adequate return. In their last report, they again refer to the loss on short branch lines, "which run through agricultural areas, where there is ample scope for extended settlement." Others passing through entirely pastoral districts pay very well. The report complains, however, that "with the unremunerative tariff which is now in force in connection with the carriage of agri-

cultural produce, we can never hope to expect lines running through agricultural areas to pay working expenses and interest on cost of construction." The Commissioners hope that those who are clamouring for a still further reduction in the agricultural rates will study the figures of the table of revenue and expenditure (showing a loss last year on fourteen of the lines). As Mr. Howard Willoughby says: "If the Commissioners are directed to get rid of all surpluses by reducing freights and fares, when two or three busy years are followed by a slack season, there is no equalisation fund to fall back upon. If the Commissioners are never, in the best of times, to earn above, say, 4 per cent., it is inevitable that upon other occasions they will earn less."

If the Queensland railways had been in the hands of companies, as some of their critics would advise, the above reductions would have been carefully avoided. Our English companies have recently taught the English agriculturist the difference between high and low rates of carriage for his produce in rather drastic fashion. "What the traffic will bear" evidently means one thing under State and another under company ownership of railways.

In South Australia the State does not seem to manage the railways badly. In 1891 there were 1,666 miles open, resulting in a profit for that year of over 5 per cent.[1] and an average for the past ten years of

[1]

Gross earnings	£1,223,999
Working expenses	617,179
Net profit	£606,820

or 5·32 per cent. upon a total capital of £11,398,839, of which almost the whole was borrowed, and after paying interest, some at 6, the larger proportion at 4, and a small portion at 3½ per cent., left a profit for the year of nearly £100,000. (Annual Report of the South Australian Railway Commissioners for the years 1889–90 and 1891.)

over 3½ per cent. Although there has been a loss in working in some of the earlier years, there is every prospect of the lines becoming permanently profitable and the Commissioners seem quite alive to the importance of reducing rates.

This is another of the colonies where the railways are managed by three Commissioners, and the colonists have no reason to regret it. The earlier loans seem to have been borrowed at a high rate (£1,313,850 at 6 per cent.), but the larger proportion was borrowed at 4 per cent., and a small sum (£354,569) at 3½ per cent., yet owing to the saving in bonds redeemed, and payments out of revenue in aid of railway construction, they have created a surplus of loan assets over liabilities of about £2,500,000 sterling, and by 1920 expected to redeem the whole of the 5 and 6 per cent. bonds by half-yearly payments. There are men who may witness the entire extinction of the debt on the South Australian railways, a perpetual benefit to the community. As the Audit Commissioners remark, "If the works had been carried out by public companies, a large part of the losses (from the commencement) would necessarily have been capitalised and charged to the cost of construction"—a burden for ever.

Western Australia has the smallest population and the largest area per mile of line of any of the Australian colonies.[1]

[1]

	Population per Mile of Line.	Square Miles of Area per Mile of Line.
New South Wales ...	496	137
Victoria	457	36
South Australia	183	312
Queensland	180	509
Western Australia ...	96	2,099
Tasmania	362	66
New Zealand	320	53

("Coghlan's Wealth and Progress of New South Wales, 1890—91.")

In Western Australia the colony owns one important line, the Eastern Railway (133 miles), which has been open about seven years.[1] But the larger portion are what are called Land Grant railways. One, the Southern Railway (243 miles), is completed, and said to be working satisfactorily, but the General Manager's report gives no details of its rates, fares, or financial results. The distrust, much of it unjust, made it difficult to raise the capital on loans. Hence recourse was had to an English company (the Western Australian Land Company) to undertake the construction of the railway, which thus becomes its property. In payment it receives 12,000 acres per mile of line, within a belt of 40 miles on either side, but with half the frontage to the railway reserved to the Government. The company has received 3,000,000 acres and have no doubt made a good bargain. So too has the colony. The chairman of the company reports that "the railway has opened up the country, and it is proved that virgin land as good as the best in the eastern colonies is waiting for settlers at prices very far below those demanded in the older colonies. Townships are springing up, settlement is proceeding apace, and instead of bush, thriving homesteads are spreading in all directions." While the Government is selling its lands near the railway at 10s. per acre, the Company has sold at double the price, new township lands at £58 6s. 10d. per acre, lands adjacent to the railway £7 17s. 9d. per acre, and rural lands 17s. 8d. per acre. It is expected that coal will be obtained near to the railway, and

1 Of Government railways there were 197 m. 71 ch. 53 l. open, and of private lines, 452 m. 56 ch. open. The number under construction were, Government railways 111 miles, private railways 176 m. 56 ch. Those under survey were 258 miles in length. Of telegraphs there were open 2,920¾ miles of poles and 3,545¾ miles of wire. 679½ miles were under construction.

this will greatly increase the profit on the transaction. Another Land Grant railway, the Midland (274 miles) is under construction under similar conditions. Six thousand acres per mile are transferred as each section of the line is completed, and 6,000 when the whole line is completed. Owing to difficulties with the company the construction was temporarily suspended, and the Government had to make further concessions, such as to lend an advance of £60,000, to guarantee 4 per cent. on the company's debentures, and to reduce the stipulated number of trains the company should run over the completed sections. Here are elements of dispute, as often happens in these partnerships between the State and private enterprise—one party or the other, and sometimes both, thinks it has been unfairly treated. The fares and rates charged by the company are to be subject to the approval of the Government—another possible source of trouble when the country becomes populated. The State has made no provision for the reversion of the railways to itself, less wise in this matter than the Indian and some other Governments. Where there is so much land, now comparatively valueless, it is easy to be lavish with it; and as the increased value in great part will be due to the railway, the shareholders are entitled to a fair share of it; but the public rights should also be protected, or the State may find too late that it has made a very bad bargain, not merely with the railway company, but that it has benefited landowners in the neighbourhood at the expense of the public.[1] At present Land Grant railways are limited to Western Australia and one in New Zealand, but the system may extend to other colonies, and create

[1] The Commissioners of New South Wales have recommended in two of their reports, "that part of the proceeds of the sale of Crown lands enhanced in value by the construction of these lines should be used for the construction of these lines,

a temptation to make lines not where they are wanted, but where speculators can best dispose of these large grants of land. If, however, the system of land grants to railways were ever justifiable, it would be in this colony. It is eleven times larger than Great Britain and has only a population of 56,000, or about one person to every twenty square miles. Its total revenue is under half a million sterling. It has hardly any rivers navigable all the year round. Whether it is wise to alienate lots of 20,000 to 40,000 acres to land speculators who do not intend to cultivate it themselves, but to re-sell to those who will, is even more dubious than land grants to railways. In any case these railways should revert to the colony on reasonable terms of purchase.

Tasmania began its railway undertakings by guaranteeing a British company which built its railway 5 per cent. for thirty years, but the Government took the wiser step of buying the line for £1,106,500, payable in $3\frac{1}{2}$ per cent. Tasmanian bonds. The Government in the five years ending 1891 had opened 376 miles at a cost of £3,093,037, which showed a small profit of 0·68 per cent.

and by this means keep down the capital account," and they mention that in Victoria, land revenues to the extent of £2,750,000 have been thus applied. In Victoria the Standing Committee on Railways reported as follows :—"Abundant evidence has been obtained that in some instances the value of country lands would be doubled by the construction of a railway, while in nearly every case they would be enhanced in value from 25 to 50 per cent., according to their distance from a station. It has been found, however, that under the present system the landowner receives the whole of that increased value ; and, further, that the State has, in acquiring land for railways, to pay, not only the price of the land before the line was authorised, but also the enhancement in value given to it solely by that railway, and heavy damages for severance in addition.

in the expenditure.[1] The latest return shows increasing receipts and diminishing expenses. There were temporary causes of extra expense which will be lessened with further progress, but which have made the cost unduly high. The proportion of working expenses to gross earnings was, in 1891, 87·51 per cent. The last report (1891) accounts for the smallness of the profit by the following causes. A large outlay for rolling stock was charged to the revenue of the year; the rates for carriage for grain were reduced below those of South Australia and New Zealand; and a considerable loss was incurred on three railways, two of which seem to have been needless, and one (the Parattah) constructed as a light line by way of experiment.

The last constructed line from the port of Strahan (Macquari's Harbour) to Zechan, the centre of the Tasmanian silver field, has paid more than the interest upon capital cost, and promises to pay well for many years.

In New Zealand there were so recently as 1870 only 46 miles of railway. In that year Mr. (now Sir) Julius Vogel proposed a policy of public works and immigration, under which railways and other public works were to be constructed by means of loans issued in this country. The railways were thus increased to 1,869 miles, owned and worked by the colony at a profit of about $2\frac{3}{4}$ per cent.;[2]

[1] Average cost per mile open £8,209
Gross revenue earned per mile ... 169,050
Working expenditure 147,944
Earnings per train mile ... ... 3s. 8·64d.
Expenditure „ „ ... ... 3s. 3·07d.

[2] Average cost per mile, £7,842.

Gross earnings	£1,115,431
Less working expenses	706,517
Net profit	£408,914

or £2 15s. 9d. per cent. on the capital cost of £14,656,691—

owing to large extensions costing about £1,000,000 and to considerable reductions in rates and fares, the Commissioners do not expect to keep up the profit at the same rate in the immediate future. The proportion of population, which was 391 to the mile of railway in 1881, lowered to 338 to the mile in 1891, owing to extensions.

The New Zealand Midland Railway Company, a land grant railway, was formed to connect the east and west coasts of the middle island by the shortest route from Christchurch to Nelson. It was to be 235 miles, and estimated to cost, including rolling stock, £2,755,000. The New Zealand Government agreed to give the company a free grant of 2,304,000 acres valued at £1,250,000, and mutual running powers were given. The Government have the right to purchase the railway at cost price at any time after ten years from the date of completion. The usual difficulties which arise from these partnerships between Governments and private enterprises have not been absent: changes in construction, extensions of time for building, variations of terms; in one instance the Government was asked to take over some of the land grant at its unimproved value (£618,000) and give instead a guarantee of 3 per cent. on £500,000 share capital—difficulties which are increased when the negotiations have to be conducted with a company 10,000 miles off, and will probably not be less in the future operations of the railway.

The average income per mile is £597 17s. 8d.; per train mile, 7s. $4\frac{3}{4}$d.
Average expenditure „ „ £378 14s. od.; per train mile, 4s. $8\frac{1}{3}$d.
The passenger fare per mile is, 1st class, $2\frac{1}{2}$d. } Local traffic is
2nd „ $1\frac{3}{4}$d. } cheaper.
Return tickets about $\frac{1}{3}$ more, and season tickets $\frac{7}{8}$d. per mile. (Annual Report of the New Zealand Railway Commissioners, 1892.)

Considering the scanty population in proportion to mileage, and the competition of excellent water carriage, it is not surprising that the income of 3 per cent. they have hitherto been deriving from the railways has not quite covered the interest on the cost. But the colony has learnt wisdom from experience. Thus, according to the statement of the Minister of Public Works (Hon. R. J. Seddon, 27th September, 1892) a determination was arrived at, five years ago, to carry on business without the aid of the money-lender, to live within their means, to carry out public works from the revenue received. "Such a policy," says Mr. Seddon, "places us in an independent position, and not, as in times gone by, when, cap in hand, money was asked and grudgingly given at rates satisfactory to the lenders, but ruinous to the tax-payers of the colony." Past experience, which now compels them to lay aside £1,842,686 annually to pay interest and instalments, has not been in vain. The Minister calls attention to the diminution of loan expenditure since 1885-6, when it was £1,475,386, gradually tapering down to £391,501 in 1891-2, accompanied by "the resolute determination of the Government to avoid even the appearance of a borrowing policy."

In reply to the suggestion that the railways should pay a larger interest, they remark that in "making many of the lines, the anticipated advantage was the settlement of the country rather than direct returns from the railways themselves." And, further, that outlay still continues on which no direct returns can at present be expected, and will even make the financial results from the existing railways less favourable.

The management is in the hands of three Commissioners, and the sections of railways are under district officers, and though free to a great extent from political control, there is some friction with the

Finance Minister, showing the evils here, as elsewhere, of divided authority. One difference is the control of the loan funds. Another, that the Commissioners do not recognise the trades unions of the employés, which he regards as an interference with the liberty of the subject. The Commissioners have prepared a draft Bill to establish an insurance fund for pensions to the disabled and aged, sick allowance during illness, and a lump sum at death, to be formed by contributions from the employés, and held by the Government at a fixed rate of interest. The Minister of Public Works, while concurring with the object, thinks that, as regards sickness, the Friendly Societies meet what is required.

One interesting feature of the New Zealand railways is the abolition of the contractor and substitution of the co-operative system, which is thus described :—

"The new system is that of constructing roads and railways by what are called co-operative contracts. In these, a small party of men, generally six in number, is allotted a certain section or length of road or line ; one of them is elected a 'ganger' and trustee for the others, to deal for them with the Government. The Government engineer states a price for the portion of work, and, as this is done by an unprejudiced officer, it is generally accepted without murmur by the men. The results usually have been very satisfactory. The abolition of the contract system has produced no increase of cost, and it is intended to extend the new system to other railway construction. Progress payments are made fortnightly, for the benefit of the men's families, and the whole amount is paid up in cash on the work being passed by the engineer. It is the intention of the Government to provide small farms of ten or fifteen acres each for these workmen, in village settlements, so that they may be induced to make their homes in country districts, and thus in some degree to neutralise the centralising tendency of modern industrial life."

Should it be necessary to lessen expenditure, work can be curtailed at any time without inconvenience, which cannot be done with a contractor without

compensation. Sub-contracting has been abolished, and "has given unqualified satisfaction throughout the country." It is probably this new system which has given rise to a statement quoted from a Board of Trade journal, as to a higher price being paid to weaker or more inefficient (though not mere idle) men. These also have women and children dependent on them, and if paid at the rates paid to the best class of navvies, would hardly earn food for themselves. This is quoted to show that the system of Commissioners does not lead to the management of railways on strictly *commercial* principles. To lower the wages of these weaker men and starve their families would, we infer, be *commercial.*

The New Zealand Commissioners (again as last year) comment unfavourably on the Hungarian zone system. The Minister for Public Works would give it a trial. They think that the circumstances are so different—the wages in New Zealand being four times greater, and the passengers eight times more numerous than in Hungary—that the example of the latter is not of much value. Further, New Zealand suburban passengers are carried now at lower rates than the Hungarian zone fares, and also that the great reduction in fares between the first and fourteenth zone ($15\frac{1}{2}$ miles and 140 miles) produced very little augmentation of traffic; the chief effect over these distances was to transfer the passengers from the slow to the fast trains.

It is curious that the working of the Australian railways should have been used as an argument against State-owned railways, when, in fact, they afford a strong argument in their favour. Mr. W. M. Acworth contrasts the cost per mile in six Australian colonies, half of it narrow gauge, with that of the United States normal gauge. He then goes on to say that "where railways are built as a commercial undertaking, money will be found for them, broadly

speaking, only when they are likely to be commercially successful." With above half the railway capital of the United States, and £50,000,000 in this country paying no dividend whatever, this seems a strong assertion. No doubt considerable mistakes were made in constructing lines prematurely, and some for which there was no necessity at all. But the colonials have shown that they are quite aware of this, and are not likely to repeat the error.[1] Many of these premature lines will ultimately become profitable by opening out the country, and if in the meantime they can be worked without loss, no great harm is done, compared with the advantage. This Mr. Johnston estimates was equal to £17,000,000 in 1890 upon the railways open for traffic, and if capitalised at 4 per cent. would be more than double the whole debt of Australia.[2]

It is admitted "that Australian politicians are clean-handed, but not so clean that they do not job public works to please their constituents." When

[1] Mr. Acworth gives the cost of Australian lines at £10,500 per mile. The Year Book for Canada states them at £9,770 Though the majority of American lines are good, some are very bad and have been labelled as "two streaks of rust and a right of way." The average cost is given at £11,600. The Argentina railways, as costing only £8,100 per mile, and without a Government guarantee for the capital, are also contrasted with those of Australia. As the national debt of Argentina is five times that of Australia in proportion to revenue, the methods of raising capital in the two countries do not seem much in favour of Argentina, to say nothing of the prospects of payment to the creditors of the respective countries. ("Government Railways in a Democratic State," by W. M. Acworth. *The Economic Journal*, December, 1892.) Mr. Coghlan states the cost per mile to be in New South Wales, £14,559; Victoria, £13,917; New Zealand, £7,617; Queensland, £6,420; South Australia, £6,527; Tasmania, £8,269.

[2] "The Credit of Australia," by R. M. Johnston (Statistician to the Government of Tasmania). *Nineteenth Century*, April, 1892.

Mr. Acworth affirms that the management of railways should not be an ordinary department of the Executive Government "under the direct control of a political Minister of Railways," he commands the entire assent of every one who has considered the subject. To place the organisation and management of railway interests under a politician dependent for his appointment on the Prime Minister, and losing what little experience he had acquired by the next party change of "ins" and "outs," is absurd, though not more so than that they should be controlled by a few respectable gentlemen, who, for a fee, give a small fraction of their time to the business. "I always expect," says Sir Edward Watkin, "to find 'old womanism' in all administrations of human affairs, simply because there is a class which 'cannot dig, and to beg is ashamed,' who must, under the exigencies of party politics, be put into positions they are unfit to occupy." It is high commendation of five of the colonies that they have recognised this, and appointed the most competent men they could obtain. New Commissioners were appointed for Victoria, so that their railways are not, as stated, "once more under direct political control." Even were it otherwise, it would not prove that State ownership was wrong, but only that Victorians were fools. So far from "the management of State railways by an Anglo-Saxon democracy having admittedly broken down," it is a great success, subject to the liabilities to error of all human institutions, and Mr. Eddy was right when he asserted the Railway Act to be one of the greatest ever passed in the country. The great danger of the colonies is that in their haste they may be tempted to construct future railways on American and English systems instead of on their own. It would be a melancholy result if the difficulty of floating Australian loans should tempt the colonists to listen to offers to construct their railways through private companies,

as has been proposed, with the insidious advice that power might be reserved to the Government to purchase the railways later at an advance of 10 per cent. on cost of construction. So far the suggestion has been rejected. That future might never come. They have a splendid heritage in the railways, which if they give up, they will lose the advantage of fixing their rates and fares, not at the behest and for the profit of private companies, but in their own interest. They would have to fight, as we have to fight, the perpetual conflict between traders and travellers on the one hand, and shareholders on the other, and would find the latter to be the stronger. So long as the Government holds railways as trustee for the community, it will not commit the egregious folly of competing with itself by rival lines. Should the system of State ownership be abandoned it would be a calamity, even if the boards who managed them were in the colonies. Worse still if, like some of the Indian railways or those of the South American Republics, they were handed over to English boards to control from the other side of the world. If it were conceivable that the Australians could be so short-sighted as to sell their railways to foreign speculators (and to permit these to own future ones would be nearly as bad) they, like some of the Governments of South America, or that of Jamaica, could do so at once, at a large profit upon cost.[1] "The Government of Victoria is credibly informed that it can dispose of

[1] The Local Government of Jamaica sold a line of 65 miles which it worked to a company (1st January, 1890) on condition that the company constructed an additional 120 miles. The price was £100,000 in cash, and £700,000 in second debentures at 4 per cent., and on the very first half-yearly payment it was short of the stipulated interest by over £6,000. Scrutiny of the company's accounts has already led to litigation, and the tangled question of what is cost of service and what is revenue is to be decided by the courts of law, a very natural result of the State-cum-Company ownership.

its lines at their full cost, or that it can lease them to pay all expenses, and to bring in a return in aid of the general revenue. It may be asked why the Government does not adopt this course; and the answer is, that private owners would send up freights and fares and would squeeze the users, and that the users do not wish to be squeezed. They prefer that all profits should come to them." . . . "The often ruinous expense of unnecessary competing lines has been avoided. There are no two roads anywhere doing the work which could be done by one."[1] If the colonies sell their railways, or by means of land grants, or in other ways, permit companies to get hold, they must bid farewell to low fares and rates and other prospective advantages. They would then stand where the people of this country now stand, subject to a number of private monopolies, tempered perhaps as ours are by Acts of Parliament, intended to prevent them from being too oppressive. It may be that the colonists have sometimes borrowed their capital at too high a rate considering the goodness of the security. But as the loans are paid off, the lines and all their profits, present and future, will at least belong to the people, freed from deductions for hungry shareholders and useless boards of directors. The dark clouds of 1892 will pass away. It will be truly wise to preserve them in the hands of the Colonial Governments for the benefit of the whole community. As these countries grow in population they will find more and more the benefit of not handing over their principal highways to bodies of private proprietors. The experience thus far of the colonial railways has shown conclusively that State-owned railways can be well managed without the intervention of private companies.

[1] H. Willoughby. *Nineteenth Century*, August 11, 1891.

The wisdom of the State keeping its railways in its own hands is illustrated in another of our colonies. In the Cape of Good Hope also there are now open nearly 2,000 miles of State-managed railways, on which the sum of £18,557,593 has been expended, and after paying working expenses and interest they earned in 1892 £4 14s. 8d. per cent., and contributed towards the revenue of the colony.[1] The General Manager, Mr. C. B. Elliott, who has had the control of the system for the past ten years, attributes the growth of the net results from £2 12s. per cent. in 1881, apart from the increased mileage—the principal factor in the case—to the system of centralisation which has been adopted for some years past, by which he has been able to assimilate the various systems scattered over the colony to a uniform model, "the best features of each system being adopted in each case as the standard." With the same object he has lately visited Europe and examined the various continental and English railways, and doubtless the Cape railways will profit thereby. When the Cape Government took over the railways in 1873, there were only 63 miles of railway, which were constructed by a private company. Probably this determined the gauge of 3 feet 6 inches, which is now the gauge of the whole 2,000 miles; but the General Manager expresses regret that the English 4 ft. 8½ in. gauge was not the one adopted. All passenger trains are or will be electric lighted. He intends to introduce

[1] The net earnings on capital entitled to interest in 1891 are on

	£	s.	d.	
Western system (£7,046,906)	3	16	2	per cent.
Midland system (£6,519,716)	7	4	7	„ „
Eastern system (£3,120,109)	1	5	2	„ „
Average	4	13	4	

Four small lines show a loss on working.

the continental system of registration of luggage. He points out that the department loses by running three classes of trains, and that two classes would suffice, and recommends that the rates of both should be cheapened, consistent with financial safety.

Most of the capital for the Cape railways has been by loans, of which the sum now owing (after paying off £1,130,375) is £15,863,852, raised at 3½, 4, 4½, and in a few cases at 5 per cent.[1]

That the Cape Government puts on a duty on imported coal as compared with the native coal is not, surely, a serious argument against State railways.[2] The Cape is not the only colony that makes economical preferences against the mother country. As the duty on the coal consumed on the railways and the profit from them go into the same State pocket, it cannot matter much to the railways, though the General Manager expresses a hope that, in the near future, colonial coal will do away with the necessity of paying £132,000 yearly to England.

In Natal there are 375 miles of railway belonging to the colony, and on the capital of £4,528,242 applicable to the open lines, the net revenue shows a return of £4 8s. 5d. per cent. per annum; as the

[1] The General Manager of Railways, in presenting his report for 1891 to the Session of the Cape Parliament, was perfectly justified in remarking that, "looking to the experience of other colonies, I do not think we need be discouraged by the general results, for we contribute very considerably to the general revenue after paying all working expenses and interest."

[2] "The Customs duty on imported coal is 2s. per ton, and the railway rate 3d. per ton mile, while for the same article, if mined in the colony, the rate varies from three farthings to a penny halfpenny." ("Government Railways in a Democratic State," by W. M. Acworth. *Economic Journal*, December, 1892.)

colony pays an average interest of 4 per cent., the "railways earned during the year a sum sufficient to cover the whole working expenses and interest, and, in addition, contributed £19,144 towards the general revenue of the colony." The working expenditure was 65 per cent., but has been reduced by 10 per cent. Thus, while the open mileage was increased 55 miles in 1891, the gross expenditure was decreased by £44,372. The colony has dispensed with the "expensive system of paying subsidies and bonuses to contractors." It employs nearly 3,000 Indians and Kafirs, and the supply of labour is equal to the demand. It is probable that there will be a fusion of the South African railways, including the Netherlands Railway, with tariffs arranged by mutual agreement and to secure harmonious working. What taste they have had of competition does not make them like it better.

In another colony, Ceylon, there are 191½ miles of railways owned by the State. Of this 74½ miles (Colombo to Kandy) were commenced by a company, but completed (as well as the other lines) by the Government, and is the "most prosperous in the world." The profit on working is 6·6 per cent. on the total cost of the whole system, but 12·87 on the debt outstanding in 1890. Numerous facilities are given to passengers, season-tickets for all classes, and even a third-class compartment is reserved for women, "who, however, do not generally avail themselves of it." [1]

[1] The gauge is 5 ft. 6 in. The receipts in 1891 were 4,429,243 rupees; working expenses, 1,951,456 rupees, equal to 44·06 per cent. Passengers carried in 1891 :—

1st class	... ...	47,883
2nd „	... ...	... 173,267
3rd „	... ...	2,855,678, including coolies.
Coaching earnings	... ...	1,384,450 rupees
Goods „	... ...	2,986,586 „

In Mauritius there are ninety-three miles of railways, all constructed, owned and worked by the Government. The original cost of construction seems to be unknown. The lines pay well, and were it not for the debt contracted in England, and some of it on high terms, to be paid in gold by the aid of the depreciated rupee, which, as in the Indian railways, turns a good profit on working into a loss by exchange, the railways would be a success. A considerable extension of the Moka line will be completed this year (1893), and the general manager of the railways expects that his department will contribute about 1½ million rupees to the revenue.[1]

In contrast with the Australian and South African railways, the Canadian railways afford an example of the ill-effect of the opposite policy. The Canadians have not exercised the same prudence as the Australians in securing the ownership of their railways. They began wrong. Lord Elgin and his Prime Minister, Mr. Francis Hincks, ardently desired to

[1] The railways consist of two main lines, the North (31 miles) and the Midland (35 miles), terminating in Port Louis and two branch lines, the Moka (16 miles) and the Savanne (11 miles), all 4 ft. 8½ in. gauge. The receipts in 1891 were—

	Rs.
From passengers	949,003
„ goods	739,218
	1,688,221
Expenditure	1,043,708
	644,513

The total railway debt on 28th July, 1891, was £632,187. The annual charge is £45,913,

	£
which includes interest	13,667
and sinking fund	3,417
	17,084

develop the Dominion, and to provide a main trunk line of railways throughout the whole length of Canada. But instead of constructing them as the rightful duty of the State, the State subsidised private companies. They succeeded in getting the railways, but at a needlessly heavy cost. While in 1850 there were only 71 miles of railways, in 1867 there were 2,000, and now 14,000 miles.[1] The liberality of Government in giving public property to private companies was extraordinary. It gave to the Canadian Pacific Railway £5,000,000, 25,000,000 of acres of land, and actually 713 miles of railroad, built by the Government at a cost of £7,000,000, to the company free of cost. This by no means represented the full extent of its liberality, which is understated at £60,000,000. Besides this, the Government has expended upon them within the last five years about £7,000,000 on construction, staff, and maintenance. With all this aid the Canadian railways pay on an average only 1·62 per cent. on capital, the smallest net revenue of any railways in the world, except some in South America, and those of Tasmania and Western Australia. A considerable portion of the public debt of Canada has been incurred

[1] The total number of miles in operation in June, 1890, was of

Company lines...	12,656
Government lines	1,353
	14,009

the theoretical cost of which was 481,920,990 dollars, but the actual cost was 816,647,758 dollars. The gauge of the greater part is 4ft. 8½ in. There are two of 5 ft. 6 in., one of 3 ft. 6 in., and one of 3 ft. With a few exceptions they pay the smallest dividend of net revenue of any in the world. The proportion of expenses to receipts is 73 per cent. on the average, but some rise to 86, 92, and 104 per cent.

to pay subsidies to railways.[1] On this debt the Dominion has to pay an average net interest of 2·93 per cent., so that the transaction is not a very profitable one. Assuming that the dividend on the railways, if owned by the Government, was no greater, a saving of 1·31 per cent. on the total debts would be welcome; but as more than half the debt is borrowed at 4 per cent. and upwards, the case for the Dominion retaining its railways in its own hands is all the stronger. Contrasted with the Australian returns to the capital invested, these have the advantage, and every increase of population will improve it, unless the Australians are so foolish as to abandon it, in their haste to promote extension. It is not contended that the objects of the Canadian debt were not amply justified by the public works on which it was expended, such as railways, canals, and other public works, but that giving grants to railway companies is not so economical a plan as that of the Governments of India, the Cape, and Australia. Nor can the ordinary mind perceive why Canadian (any more than the Indian) railways should need a Board in London to manage them. The Canadian

[1] The following are the contributions of the Dominion Government to the railways :—

	Dollars.
Bonuses to different railways	142,934,781
Loans due to the Government from railways in 1891	21,201,314
Grants from Provincial Governments	29,823,658
Grants from Municipalities	15,855,100
Land grants, 47,204,319 acres, at 2 dollars per acre, but estimated at much more	94,408,638
	304,225,491

being about 23 per cent. of the total capital. ("Statistical Year Book of Canada for 1891," by Sydney C. Roper.)

Pacific Railway, the largest system, is managed entirely from Montreal.

Of course company ownership has produced its usual result of creating competitive lines, with rates reduced below any adequate return for capital. The Grand Trunk received a loan[1] (practically a gift) of £3,111,500 from the Government of the Dominion, does not pay a dividend on its ordinary stock, its first preference stock has received no dividend for three years, and only 5 per cent. in all in five years, the second preference received nothing since 1883, and the third preference is merely a "gambling counter." The company looks to amalgamations as one means of reducing competition and lessening working expenses. "The desire of its representatives," said its chairman, "was to carry, as much as possible, traffic which paid, and to neglect traffic which did not pay." Of course they owe no duty to the public. Its auditor, Mr. Household, at the company's meeting (October, 1892), complained that its position was worse than in 1890, although they had expended in the interval £1,500,000, and that the railways they had affiliated, bought at 40s. in the £, might have been acquired at 10s.[2]

Curiously enough, while parting with its railways, the Dominion Government has retained its canals, the most important in the world, in its hands. On these

[1] Guaranteed by the Imperial Government to enable the Dominion Government to borrow it at a little lower rate. But the payment of interest is now deferred until after payment of 3 per cent. on the ordinary stock of the Company, and therefore is practically abolished.

[2] The following is a comparison of the two :—

	Canada.	Australasia.
Cost per mile	£11,535	£9,770
Railway receipts per mile	3,440	3,684
Tons of freight per head	4·5	3·0
Number of persons to each mile of railway	331	331
Square miles to each mile of railway ...	236	267

it has expended over £7,000,000 on their construction and enlargement, exclusive of repairs.

On two of its three lines of Government railways the State has expended over £7,000,000. The third (Windsor branch) it only maintains. The other two lines, the Intercolonial and the Prince Edward Island, are carried on at a heavy loss.[1] The Intercolonial railway forms part of an important through route between the Atlantic and Pacific oceans. It passes through a sparse population, and is very expensive to keep free from snow. Its importance may have justified the Government on national grounds, as a matter of public policy, in constructing it, although its working expenses are 600 dollars per mile more than the earnings. That in Prince Edward Island was not a Government line, but the Government took it over and completed it, as part of the agreement under which the Island entered into the confederation in 1867. It seems surprising that while the State should accept these bad bargains, those that showed a prospect of paying should be handed over to private companies.[2]

The Canadian system of management resembles rather that of the United States, and both rely upon similar checks to prevent abuses to which private companies are liable. A railway committee was established in 1888 with somewhat analogous powers to that of the Interstate Commerce Commission, but with greater powers of interference, and

[1]

	Miles.	Loss 1890-1. Dollars.	Percentage of Expenses to Earnings.
Intercolonial Railway ...	1,154½	684,946	123·0
Windsor Branch Railway	32	1,303 gain	95·7
Prince Edward Island Ry.	211	83,732 loss	148·1
	1,397½		

("Statistical Year Book of Canada, 1891.")

[2] The Grand Trunk (3,143 miles), and the Canadian Pacific, (5,537 miles), make up three-fourths of the Canadian lines

objectionable in that it consisted of Government officials liable to the vicissitudes of party. One advantage is that the Canadian companies cannot buy their own shares nor pay dividends out of capital. The Railway Committee exercises control over all the details of railway management; but it permits discriminations between localities to meet the competition between land and water routes. With an area (3,456,383 square miles) nearly as large as the whole continent of Europe, and a population not greater than that of London (under 5,000,000), it is yet, no doubt, destined to become a large State of many millions. It seems a pity that the Dominion did not commence with State ownership of its railways, especially as it subsidised them so liberally. It would have cost the Government less labour to own than to control them; and, unless it corrects its error, every year's growth of population, with consequent growth of traffic, will multiply the trouble inseparable from the competing interests of the public and the companies.

It has frequently been said that the State can only manage railways in despotic or semi-despotic countries; but the foregoing facts show that State ownership is quite compatible with free institutions. If it were not so, so much the worse for free institutions; it would be another evil to the many which, under similar delusions, we are compelled, needlessly it is true, to tolerate in the name of freedom.

(excluding the State lines). The following shows the extent of their respective operations in 1891 :—

	Capital Paid-up. Dollars.	Passengers.	Freight Tons.	Train Mileage.	Proportion of Expenses to Receipts.
Canadian Pacific ...	279,527,597	2,971,774	3,675,113	13,754,014	62·0
Grand Trunk ...	324,867,300	5,908,987	7,736,069	16,482,207	72·0

The Grand Trunk runs through the most populous and best settled portions of the Dominion. ("Statistical Year Book of Canada," by Sydney C. D. Roper, 1891.)

CHAPTER VIII.

FOREIGN EXPERIENCE.

"The main lines of communication are the rightful service to the public, and free and safe communication a duty of the State, and all the means to that end ought to be maintained for the people."—EDWIN CHADWICK.

ON the Continent it was early recognised that railways could not wisely be private enterprises. Even when private companies existed the State kept a sharp control over them, nor did it sanction railways as *perpetual* monopolies, but provided for their reversion to the State.[1]

One of the best examples of State ownership must be looked for in the States composing the German Empire. Besides Prussia, several of the confederated States have their own systems of railways, but their interests, and to some extent their jealousies, delayed an imperial system of railways for Germany, as State rights in America impeded unification of the railways there.

Prussia has vigorously pushed the State system, and out of over 14,000 miles, the Government owns all but 1,100. She did not follow the example set by this country, nor has our success since been such as to tempt either Germany or Belgium to change

[1] In Austria and Russia the concessions to the railway companies were given for ninety years, when they lapse to the State. In Belgium the concessions were for ninety years, in France for ninety-nine years, but with the power on the part of the State to acquire them at any time on payment for the unexpired time. In Switzerland, Spain and Portugal, though there are no State railways, they lapse to it in ninety-nine years.

their systems for ours. We are so accustomed to railways and other large enterprises being managed by companies and boards as hardly to conceive that other methods may be better; but these countries show us how to dispense with them. As early as 1838 the Prussian Government began to assume ownership of the railways at first by purchase, and latterly by the construction of new ones. In 1883, Sir John Walsham reported that for some years from 1876 the Prussian Government had been steadily occupying itself with purchasing the private lines and creating an Imperial State railway system.[1] By 1885 about eleven-twelfths of the normal gauge lines had passed into the hands of the different States, leaving only about one-twelfth in the hands of private companies. It is only a question of time when the State will absorb the whole.[2] But the English notion of competing lines was never entertained. The lines were

[1] Commercial No. 41 (1883), c.3790. The report gives some interesting details of the terms of purchase.

[2] According to the statistical abstract for 1891, No. 17, the railways in Germany were as follows in 1889:—

	English Miles.	
Prussia	1,140	Companies
31st March	13,649	State*
Alsace and Lorraine ...	819	Companies
31st March	—	State*
Bavaria	466	Companies
31st December ...	2,893	State
Saxony	65	Companies†
31st December ...	1,554	State*
Wurtemburg	11	Companies
31st March	974	State
Baden	49	Companies
1st January	810	State
Hesse	340	Companies
1st January	227	State
	24,845	Total length of line.

* Including Companies' railways worked by the State.
† Including lines belonging to Coal Companies.

bought by the State by payment in consols bearing 4 per cent. interest at twenty-five years' purchase of the net average income during a certain number of years previous. The debentures of the companies of $4\frac{1}{2}$ per cent. were transferred to the Government, and are being rapidly paid off. Sir Bernhard Samuelson's report[1] stated that the cost of the railways, including premiums, was about £420,000,000, and the Government made a profit of 1 per cent. on the purchase. The practical result of transfer to the State produced "decided economy in the cost of working the traffic, greater uniformity in the rates, and increased accommodation to the public," and inquiries in numerous centres of trade manufactures and consumption showed "that these advantages have been secured without any drawbacks."

The management of the lines rests with an imperial railway board and provincial railway boards, who advise with the district councils representing commerce, manufactures, agriculture and forestry, and with great practical utility. Fancy a railway board here conferring in a friendly way with a Chamber of Commerce as to rates or other details! When the traders and companies did confer in 1890 and 1891 it was as belligerents, compelled to meet, under the powers of the Board of Trade. The German Government charges its rates on the principle of cost of service, adding a profit for the benefit of the State. Terminal rates are fixed low so as not to interfere with short distance traffic. A rate once fixed is tolerably permanent, not as in America, changed at the arbitrary will of the managers, sometimes two or three times a week, seldom giving their customers any schedule of rates, and probably not adhering to them when they do.

[1] Report to the Association of Chambers of Commerce on the Railway Goods Tariffs of Germany, Belgium and Holland, by Sir Bernhard Samuelson, Bart., M.P., 1885.

Sir Bernhard Samuelson states that there is a general tariff for the whole of Germany. The singular device of maximum charges which are not to be charged is unknown. The railways cannot refuse to carry goods tendered them for conveyance (except dangerous ones). All preferences are strictly forbidden. In no case is foreign produce carried between the same points at lower rates than those of Germany, nor are rates reduced in order to compete with coasting steamers, though there are some exceptions. One blot on the German system is that, in conformity with its protective system, the Government makes the railway rates a means of giving a bounty to exports and of protection against imports.[1] So the French Government, although it recently reduced the passenger tax considerably, with a consequent reduction of fares, raised the through rates for merchandise to the Continent. While tariffs concede to us "most-favoured-nation treatment," the advantage may be lessened by railway rates in the interest of Protection. Objectionable enough, but it is not worse than the reverse process adopted by our own railway companies! The former professes to be for the whole community, the latter to benefit local interests, but really only to benefit the companies themselves. There are no disputes about railway charges, or complaints of undue delay in forwarding. And lastly, the costs of carriage, except as regards certain articles, are so much lower as to place our traders at

[1] The German Government does not, however, care to protect home industries so far as to pay too much for its rails. As an instance, the firm of Krupp, in Essen, in 1890, asked from the German railway administration £7 5s. per ton for rails at the very time when it was supplying Roumania with the same rails for £5 11s. 6d. In order to meet this system, the administration of German railways, when tenders are made, have, it is stated, repeatedly favoured the cheaper offers of foreigners, especially English and Belgian works, and passed over some of the more important German works.

a serious disadvantage. The German can send steel plates for gasometer-making and engineering purposes, and steel rods for rivet, screw, and wire making, with which our Staffordshire and Midland makers find it difficult to compete. Rates are founded on intelligible principles and not on the haphazard estimate of traffic managers of "what the traffic will bear."[1] Add to these advantages that the State derives a revenue of over 17,000,000 sterling per annum, which would be better expended in reducing the rates and fares than in saving taxation.[2] It is asserted, we do

[1] Since the 1st September, 1891, new tariffs, considerably reduced, for the carriage of cereals of all kinds, vegetables and flowers, have come into force on the railways of Prussia.

This reduction in the rates is applicable to distances comprised between 200 and 1,700 kilometres. Consignments below 200 kilometres remain subject to the old tariffs. The basis of the new tariff is as follows: After 300 kilometres the rate is increased by one pfennig per zone of 5 kilometres and per 100 kilos of merchandise. Hitherto the increase for the same distance was 2·2 and 2·3 pfennigs.

This difference becomes more appreciable the greater the distance. Thus the reduction in the tariff is 27 per cent. for 500 kilos, 42 per cent. for 1,000 kilos, and 48 per cent. for 1,700 kilos.

One example will demonstrate the advantages offered by the new tariff for the importation of cereals from Austria-Hungary into Germany. Up to 31st August the cost of the transport of a waggon-load of wheat from Cracow to Hamburg amounted to 405 marks. Since the 1st September it has been effected at the following cost:—From Cracow to Myslowitz, 22·30 florins; from Myslowitz to Hamburg, 233 marks; there results therefore a saving of 134 marks. Steps are being taken so that the State system in Saxony and in Bavaria may apply the same reduced tariff.—*Board of Trade Journal*, October, 1891, page 134.

[2] In 1890 the surplus was 350,000,000 marks, equal to £17,500,000.

The returns of the passenger traffic on the Prussian State lines show a steady and satisfactory increase. The numbers carried were 162,000,000 in 1885-6, 176,000,000 in 1886-7, 191,000,000 in 1887-8, 207,000,000 in 1888-9, and 235,000,000 in 1889-90.

Traffic and receipts have grown even with the addition of a

not know on what evidence, that this saving is only apparent, and "that the State has to incur considerable expense for rolling stock, etc." Such a statement is hardly in accordance with German accuracy. Mr. Grierson contended that the comparisons of English with foreign rates given by Sir B. Samuelson were erroneous, because the latter excluded from the English rates cost of collection or delivery, or both. This is an error. There were a few mistakes, some partly due to recent changes in the quotations of the English railways, but they affected the general comparison only slightly.

Mr. Grierson has better ground for his contention that owing to the difference of circumstances—original cost of construction, difference in gradients, nature of service performed, speed in transit, the more limited

number of non-remunerative secondary lines during the period mentioned.

German railways manage the system of refreshments better than we do. Soup, tea, coffee, and lemonade, good and at moderate prices, are generally obtainable there and rarely here. The Aërated Bread Company here has shown the way, but the example has not yet been followed either at English stations or at our public entertainments and exhibitions. Bad tea and coffee at double the price of beer is not the way to encourage temperance.

Second class long-journey carriages are provided with a lavatory, and many who would in England, France, Belgium, or Italy ride first class are content with the second class in Germany. The following are the German railway fares :—

	Ordinary trains.	Fast trains.	Return tickets.	
1st Class	5·16	5·805	7·74	
2nd „	3·87	4·302	5·805	farthings
3rd „	2·58	3·012	3·87	per mile.
4th „	1·29	—	—	

"For every 14s. 1d. a London workman has to spend in travelling to and from his work, the workman of Brussels has only to pay 5s. 7d., of Berlin 8s. 4d., of Paris 7s. 7d., of Vienna 8s., and of Buda-Pesth 8s. 5d. On an average, the London workman has to pay 78 per cent. more than his *confrère* abroad."

responsibility of foreign railways, better opportunities of getting full loads, and immunities from taxation—no fair comparison can be made. In our case it is too late to entirely rectify the original error of non-systematic arrangement, or the wasted outlay on the first cost of the railways, which some nations avoided, but it is all the more needful to obtain now the advantages of consolidation and unity of organisation.[1]

In Bavaria the expenditure on State Railways in 1889 was £2,915,400, and the receipts £5,300,261. The surplus was to be employed in the building of local railways, doubling the main lines of rail, augmenting the rolling stock, and the purchase of ground for railway purposes. While the estimated net income from the railways was only £1,900,000, they actually earned £450,000 more. The railway debt to private holders is £48,373,020, which bears interest at 4 per cent.[2]

The example of Belgium is equally instructive. Originally the lines were planned on a system for the whole country, and although the larger portion were constructed by private companies, its State lines, the main part of which were in the Low Country, were so well and so cheaply constructed that they were able to compete with the private ones. Ultimately

[1] The Berlin correspondent of the *Times*, commenting on the latest statistics of German railways, makes the following interesting comparison for the ten years ending 1890-91 :—

	Increase in mileage. per cent.	Increase in receipts. per cent.	Increase in net revenue. per cent.
England ...	10	... 20	... 15
France ...	33	... 3	slight decrease
Germany ...	22	... 41	... 23

Capital invested in 1890 and 1891 produced an average rental in German lines of 4·86, English 4·10, and French 3·75 per cent.—*Times*, November 14th, 1892.

[2] Diplomatic and Consular Reports, Bavaria, 1892, No. 1133.

the State purchased most of them, and with one of the independent railways it has a joint purse arrangement. After deduction of interest and for a sinking fund, there is a profit to the State, but profit is a secondary consideration.[1] In 1888 the Chamber, as one mode of relieving agricultural depression, besides recommending a considerable sum for the construction of new lines, suggested that the Government should grant two-thirds of the expenditure on new parish roads leading to railways "on the ground that it is clearly the interest of the State to bring traffic to the State railways."[2] Belgium began this system of reducing rates in 1856, and the effect in eight years was to increase the tonnage 106 per cent., and the receipts 49 per cent. From 1870 to 1883 the gross receipts increased 168 per cent. It is now sixty years since King Leopold commenced the earliest State lines in Belgium. They were not adequate, and numerous

[1] In 1890 the receipts were £5,650,018
And the expenditure was £3,368,506

Leaving a surplus of £2,281,512

According to the "Statesman's Year Book" (1893), the State had expended 1,341,245,043frcs. up to 1890 on the first cost of its railways.

The total receipts from its railways from
1835 to 1891 amounted to ... francs 3,029,988,831
Expenses during same period ... „ 1,777,073,203

Leaving a surplus of ... ... „ 1,252,915,628

equal to £50,116,625. If we set against the interest not included in these figures the reduced rates and fares, the railways have earned in profit nearly their original cost. ("Commercial," No. 18, July, 1891 (c 6,423). The company's lines were 792 miles and the State lines 2,018 miles Dec. 21st, 1891.)

[2] Diplomatic and Consular Report, No. 479, March, 1889.

private lines in addition were authorised. They worked in harmony, at least not in unfriendly competition, which tended to improve both the State and the private lines, and certainly kept down the rates and fares of both. In the earlier period, while the State aimed to make the rates and fares as low as possible, the companies naturally objected, and but for the Government control, the great reductions would not have been possible. The Belgian Government has not tried to make a large profit for the State, but rather to develop commerce and industry by cheap transit. The system of granting special rates to individuals, so largely practised here, had to be abandoned. It is illegal, and the mere publication of all rates prevented special contracts. Concealment of such arrangements is more easy with private companies than with the State, with the natural result that the average charges must be kept moderate. Another circumstance contributing to low rates is that the State owns the water navigation. Though there are many canals in France and Belgium, only one canal in France and none in Belgium is owned by the railways. The general tendency has been to transfer the numerous private lines to the State. Public opinion has not asked for the reverse process —the sale of the State lines to private companies—and the State now owns three-fifths of the whole and will probably absorb the remainder. In contrast with our own country the Belgian Government pays nothing for the conveyance of its mails. Our railways receive close upon a million sterling (£920,164) for the conveyance of mails, besides half a million for parcels. The English Post Office has to pay for parcels 55 per cent. to the railways for the smaller share of the work. This is bad enough, but it is worse that the Postmaster-General has returned, in several instances, to the obsolete coaches and highways, and boasts that on one short route he

thus saved £1,500 per year.[1] This, surely, should be impossible. For coaches, carts, and omnibuses for the conveyance of mails the Post Office paid £317,616 in 1891. Thirty years ago the railway companies contended that the Post Office service did not remunerate them, but the authorities proved that the companies received over four times the amount paid to the ordinary mail coaches.

Switzerland has contemplated the purchase of its railways. "The object of this proposal is not so much to increase the Federal revenue as to free the railways from the control of foreign capitalists, to work them in the interest of the public, and by a gradual process of amortisation to reduce their heavy debt of £24,000,000, which is likely, under their present management, to be considerably increased by the

1

	English Postage.					Average Postage per Parcel.	
		Number of Parcels.	Gross Amount.	55 % on Railway-borne Parcels paid to Railway Companies.	Post Office Share.	Gross.	Post Office Share.
			£	£	£	d.	d.
1884–5	Railway-borne and Road-borne.	22,910,040	508,247	256,572	251,675	5·32	2·63
1890–1	Railway-borne and Road-borne.	46,287,956	1,035,773	499,913	585,860	5·37	2·77

The Postmaster-General reported (1891) new parcel coach services had been organised between London and Chelmsford, Colchester and Ipswich, Oxford *viâ* Reading, Chatham, and Tunbridge Wells.

year 1957, when they will in any case lapse to the State."[1]

In 1890 the Federal Assembly sanctioned a loan of £2,773,200 for this purpose at 3½ per cent., to effect the gradual purchase of the 104,000 privileged shares of the Jura Simplon Railway against Federal 3 per cent. bonds at 90. Further, it was resolved to purchase the whole Central Railway. "The Federal Council was invited to submit proposals respecting the mode of purchase of the remaining Swiss railways, and the system to be adopted for their future administration." This was done, but unfortunately was rejected by the Referendum on December 6th, 1891, and was followed by the resignation of Dr. Welti, the President of the Confederation. There is little doubt that the Swiss will at no distant period nationalise their railways.

One disadvantage of several continental lines is that they were planned with reference to military or political considerations rather than to public or commercial ones, and consequently do not confer the full advantages they otherwise might have done. If only peaceful interests had been considered, the railways would have shown greater profits. But the same mad infatuation that has made Europe an armed camp of over twenty millions of men diverted railways from the routes favourable to industry to "strategic" ones, and is part of the heavy price paid for the game which,

> "Were their subjects wise,
> Kings would not play at."

This is the case in Russia, where the lines were laid down under Government direction. Of its 18,059 miles of railway, 12,750 miles are managed by private companies, and perhaps it is as well, if its State

[1] Diplomatic and Consular Reports, No. 939, 1891, No. 1116, 1892, and No. 244, 1892.

officials in that country deserve the character attributed to them. Many of the private lines have received subsidies and guarantees. For this assistance the State requires to be represented by two or more members on the board, and their assent is required for expenditure, declaration of dividends, &c. The construction of all railways is subject to the approval of the Government, and the rates are fixed by it, and cannot be changed without its consent. The Russian famine brought into contrast the provision we made (through the railways) in India against the emergencies of famine, so that the calamities once experienced in India—millions perishing for want of distribution of food—could hardly happen now. But in Russia, with about an equal railway mileage, this did happen, and inflicted evils almost as great as those of war. If the strategic railway happened to pass through grain-producing districts, well and good—but if not, not. The rye that might have been transported for a few copecs to famine-stricken districts was unattainable, owing to the crushing expense and bad administration of transport. Even in ordinary times this expense is a terrible tax on the producer. Russia, indeed, pays a high price for her military precautions and evil bureaucracy. The late famine showed their inadequacy. At one time there was a congestion of 11,000 wagons, a tenth of the rolling stock of all the Russian railways blocked, and communication suspended for weeks. The War Ministry was in consternation. What might happen if in case of war a sudden requisition were made for men and material? It might be fatal. As a matter of fact, there was not such a failure in the harvest as was represented. Our Vice-Consul at Kieff, in Southern Russia, Mr. Smith, said that, though there was famine in some places, there was abundance in other parts of Russia, and that the whole case arose from the breakdown of the railway system; so that while there were starving

people in some districts, grain was rotting in the Caucasus.[1]

In France, the timidity of commercial enterprise characterised the beginning of its railway system, and deferred the introduction of railways, while other countries were actively engaged in constructing them, and with the result of a system of private companies, but with a considerable amount of State control. The State sometimes gave subventions, land, and even erected stations, the companies completing and working the railway. The error which the French Government made of giving up the means of communication to companies its unsettled politics have continued. It has adopted a half and half system, without the advantages of the German and Belgian method, and having some of the disadvantages of our own. Like ourselves it left the construction of the principal lines to private companies. But its principle was regulation rather than competition, and in arranging the lines it did not follow the haphazard system of this country and the United States. In 1842 it began surveys and laid down plans for the whole country, and thus much of the wasteful competition of rival lines was avoided in the earlier stage, though at a later one this sound principle was somewhat departed from. The result is that the Government is saddled with a degree of interference almost as burdensome as if it owned and managed the railways itself. State regulation, though not so good for the nation as State ownership, is better than

[1] A novel kind of line is contemplated to be constructed between Kazan and Malmyge, Russia. The trains are not only to stop at every village, but at every farm on the route which may have anything to forward or receive. Numerous platforms are to be built for the loading and unloading of goods. The railway is to be as economically constructed as possible—namely, at the remarkably low rate of 13,827 roubles per verst. The stations will be of the most primitive kind. The line is to be connected by tramway to mills, factories, and to every point which is likely to have traffic.

the competitive system of the United States; at least, it is free from the national waste and ruinous losses which that system involves. The main lines are owned by six large and two small companies, and they are not allowed to invade each other's territory. Two of them own about 5,000 miles of road. The French Government has a highly-trained staff of engineers to supervise them, and about 800 officials, costing £160,000 per annum, but it has adopted the mistake of supposing that stringent Government control will cure the defects and shortcomings of company ownership. The French Government exercises a strict control over the details of management of all of them. It has its agents at the principal stations, and the time tables and tariffs are subject to its approval; the accounts of the companies are subject to annual examination. "There are all the disadvantages of extreme officialism, without the advantages of public ownership."[1] Like our own railways, where there is competition they compete to the injury of each other; where there is not, they adopt our plan of taking "what the traffic will bear." Like ourselves, they have several thousands of rates. Like our own railway authorities, the directors of the French companies claim "commercial liberty" to fix rates as they think best; while the French people demand "reduced rates," they permit differential rates in the interests of Protection, the inveterate foible of the French nation. They have still a "railway question" to settle, and there is a growing conviction in favour of State purchase which hitherto has been impeded by the uncertainties of politics. But France will have a great advantage in the fact that when the terms of the railways expire, they will lapse to the State, and it will derive an enormous income without

[1] "State Purchase of Railways," Charles Waring, p. 31. France had (December 31, 1891) 21,341 miles of company lines and 1,570 miles of State lines.

that heavy compensation that will have to be paid here. When that happens, the State will have either to organise a machinery for their management, or less advantageously lease them to the companies.[1]

In 1865 a law was passed giving the Departments and Communes power to construct or authorise local lines. The growth of trade and local necessities demanded more railway accommodation than the main lines afforded. The war of 1870 suspended such enterprises, but in 1875 many local lines were constructed, on which the Government guaranteed interest at 4 per cent. and a trifle over to form a sinking fund. The State was asked to purchase them, but the vested interests of the older companies prevented this, so like the rest they only came under State supervision. The principle of territorial arrangement, the fixation of railway rates and charges, which cannot be altered except with the consent of the Government, and other precautions, tend to secure the shareholders dividends of 7 to 11 per cent. from their investments. It is not likely that the system will be permanent in face of the experience of neigh-

[1] The French Government has important privileges in the conveyance of troops and mails, and it is estimated that it received in the year 1890 over fifty millions of francs, and that the profits and savings derived by means of the Post Office, Customs, and military and naval services amounted to many hundreds of millions of francs. It has abolished recently the additional tax of 10 per cent. imposed on railway travelling in France in September, 1871, and, in consequence of further concessions made by the French railway companies, a substantial reduction in passenger fares came into operation on the 1st of April, 1892. The total reduction was estimated at £3,640,000 per annum and was equivalent to a reduction on the third class of 30 per cent. and brings these fares to about $\frac{2}{3}$d. per mile. At the same time reductions of 27 to 33 per cent., and in some cases of 50 per cent., in express goods rates. The English traveller to Paris should have benefited by this reduction of fares. But the English lines actually *increased* them considerably. The fare of $1\frac{3}{4}$d. per mile in France is $4\frac{3}{4}$d. between London and Dover.

bouring countries. The State has the right to buy any line after fifteen years from the date of the concession, for the remainder of the term, for an annuity equal to the average profit of the previous seven years. Altogether the French Government has shown a greater regard for the interests of the nation than our own has done, and such an experience as this country has recently had would not be possible in France or, indeed, in Europe.

In Austria railway experience has been chequered. When other nations were introducing railways, her Government steadily opposed them; afterwards she constructed them rather extensively. Then, when the Government fell into financial difficulty (attributed to the revolution of 1848), it sold the railways to companies at half their value, again repented and bought some and constructed others, and at present owns about one-third of the total railway system.[1] But with all their vicissitudes the Austrian railways have always surpassed our own in the cheapness of their fares. They have no competing fares, and as their rates are mileage ones, serious inequalities of charge are avoided.

Contrasting the administration of railways in Austria with our system, an English traveller breaks out into admiration at being able to travel from Salzburg, through Vienna, Pressburg, Buda-Pesth to Fiume, 750 miles, for 21s. "Who," he asks, "are the beneficent railway directors who have so arranged to make easy the summer wanderings of myself and crowds of

[1] The Statistical Abstract for 1891, No. 17, gives the mileage as follows :—

	Companies.	State.	Total.
Austria (proper) ...	6,292 ...	3,053 ...	9,348
Hungary	4,002 ...	2.749 ...	6,751
Miles...	10,294 ...	5,802 ...	16,096

others who travel through their own land amid lake and mountain scenery of surpassing beauty?" They are no other than the people of Austria themselves, acting through their Government. The State controls them, not to secure dividends to shareholders, but to enable the people to move about their own country to take or send the produce of their labour to places where it may best be disposed of. He adds, "The people of Austria and Hungary are delighted with their system of State railways; they speak with enthusiasm of the facilities for travel which it allows them. They are not obliged to buy the tickets at the last moment before starting on a journey; they buy packets of them, and use them as they need them." ("Shall we English ever have a State Railway?" *Pall Mall Gazette.*)

The reductions in fares was even a greater benefit to Hungary than to Austria, because previously the fares were higher than in Austria, the local traffic small, and the cheaper fares gave an impetus to travelling unknown before. In Hungary the promotion of railways has been more steady than in Austria. The recent introduction of the zone system, first in Hungary, followed by Austria, exhibits a surprising development of railway capabilities which is destined to be fruitful elsewhere. Under it, Hungary is divided into fourteen zones, with the capital, Buda-Pesth, as the centre, and the tariff is calculated not by the mile, but according to the extent of the district traversed. Its effect was to compel some of the private lines to imitate the system, and to reduce fares for third class passengers to one-third of their former rates.[1]

[1] Consular Report, 883 c. 6205—114 for 1890. Presented May, 1891. *See* also Appendix A. Mr. J. Blundell Maple, M.P., writing on this subject, says :—"Hungary was, in some respects, the most unfavourable country in Western Europe for such an experiment. It has relatively a small population

Mr. W. M. Acworth rather depreciates the Austro-Hungarian system of zones, and possibly the merits

scattered over a large territory, poor, and not likely to respond quickly to such a thing as a reduction in railroad fares. Yet the traffic has enormously increased under the zone system. In the first ten months of its operation the number of passengers increased nearly threefold, while the earnings in the previous ten months of less than seven and a half million florins rose to close upon nine millions, under the zone system at the reduced fares. This with the same lines of railway, the same stations, the same plant, and very few extra expenses. M. Baross, the Hungarian Minister of Commerce, and his Government had prepared in their budget for a deficit on the railways, instead of which there was a surplus. The railway tickets are freely sold at shops and hotels, thus minimising the labour at the booking offices. The Austrian zone system I prefer to that at work in Hungary, as the zones are smaller and the prices ess, the working being easier, more advantageous, and applicable to this country, although it would mean a great reduction upon our parliamentary third-class fare, which is one penny per mile. The Austrian system was adopted in June, 1890, and works from Vienna. The following shows the extent of zones and fares :—

Zone.	Distance in Miles.	1st Class.	2nd Class.	3rd Class.
		s. d.	s. d.	s. d.
1	1 to 6	0 6	0 4	0 2
2	6 to 12	1 0	0 8	0 4
3	12 to 18	1 6	1 0	0 6
4	18 to 24	2 0	1 4	0 8
5	24 to 30	2 6	1 8	0 10
6	30 to 39	3 9	2 6	1 1
7	39 to 48	4 10	3 2	1 4
8	48 to 60	6 0	4 0	2 0
9	60 to 75	7 5	5 0	2 6
10	75 to 90	9 0	6 0	3 0
11	90 to 105	10 6	7 0	3 6
12	105 to 120	12 0	8 0	4 0
13	120 to 150	15 0	10 0	5 0

The success of the zone tariff system in Hungary with passenger traffic has been so great that the Hungarian Government applied it to goods traffic also.

of these subdivisions have been overrated[1]. He further says that there is no concession to the public. "Instead of increasing the fare for each single mile, they increase it by jumps every ten or fifteen miles." He admits in this "there is a convenience to the railway management, which has to do fewer sums in arithmetic, and those of a simpler nature, and is enabled to keep a smaller stock of tickets, and to employ less intelligent persons to issue and to check them." But he holds that the benefits in Hungary of what he admits to be a remarkable concession *on paper* are neutralised by the fact that the railroads all lead to the capital, Buda Pesth, and that through tickets are not issued from stations on one side of it to stations on the other, that from the commencement of the 14th zone (135 miles) the boundaries extend right up to the frontiers of the country, *i.e.*, a traveller may go as far as the railway goes without extra payment! He says "that such an arrangement is impossible in Great Britain, with its numerous independent railway companies interchanging traffic with one another at hundreds of different points." A good reason for substituting a unification under the State for the "independent" railways.

Our Consul at Fiume thus describes the earlier results in Hungary of the new system :—

"It is interesting to point out the benefits accruing to Fiume by the effects of the Hungarian zone tariff system and the different lines of steamers, which by degrees are being called into existence by the care and foresight of M. de Baross,[2] the Minister of Commerce, at a trifling cost to the Exchequer.

"Our much-vaunted 'parliamentary' sinks into insignificance in face of such achievements as those of M. de Baross.

"When it is considered that you can travel from one end of the country to the other, not by a slow 'parliamentary,' but

[1] "Can Railway Passenger Fares be Lowered?" By W. M. Acworth, *Nineteenth Century*, September, 1891.

[2] M. de Baross died in 1892.

first class and by express, at the rate of a penny and one-third a mile, and third class at one-half that price, and that even these low rates are further reduced by 15 or 20 per cent. by means of circular tickets ; when it is further considered that this has been achieved without a decrease in the receipts, without the necessity of large investments for rolling stock, and that the large increase of passengers has been carried without loss to the State, it is needless to affirm that M. de Baross has every reason to feel proud of the result.

"M. de Baross has thus offered to his countrymen the stimulus of cheapness for travelling purposes in an unprecedented degree in order by this means to overcome their aversion, and this has been effected, as it appears, with unparalleled success, such as is likely to induce other countries to follow suit, which they can the more readily do after having profited by the experience gained by Hungary, in what was to her a leap in the dark.

"Cheapness, such as is offered by excursion trains in England, will not bear comparison with the scheme of M. de Baross."[1]

Another report[2] draws the following deductions :—

"First, that the zone system increases the number of passengers at a rate disproportionate to the increase in receipts," which is but another way of saying that a large number of people are carried at a lower rate than before. "Second, that such increase is mainly observable in regard to short journeys ;" and third, that though "the zone system will necessitate a considerable increase in the rolling stock," and consequently a heavy item in the Austrian budget, yet "in a country in which the principal lines are worked by the State a compensation is afforded by the advantages to goods traffic and general trade, and the consequent development of exports and imports."

That the acquisition of the railways in Hungary by the State has proved a success is shown by the Budget of the Ministry of Commerce for 1892 showing a surplus of receipts over expenditure of nearly two millions sterling (£1,947,959). "A large portion of this excess is to be attributed to the railways," and is chiefly owing to the acquisition of the Austro-

[1] "Consular Report, 883 c 6205—114 for 1890. Presented May, 1891.

[2] "Commercial," No. 18, July, 1891 (c 6423).

Hungarian State Railway."[1] A later report states that "since the introduction of the zone tariff, while the length of railway lines has increased by 3·06 per cent., the number of travellers has increased by 161·07 per cent."

It is not contended that there is any magic in the zone system, as the New Zealand Commissioners showed.[2] The wonderful development it caused was due primarily to the transfer of the railways to the State, which enabled a great reduction of fares to be made, and were compensated by a largely increased traffic. As Mr. Acworth says: "Where two passengers travelled in 1889, five are travelling to-day. The gain to the public is undeniable (!); and the gain to the railways themselves is, likewise, no small one, for *under Hungarian conditions* it is more profitable for the railway to carry five passengers at a halfpenny than two passengers at a penny." On the Austro-

[1] Report to Foreign Office on the Finances of Hungary, No. 969, October 19th, 1891.

[2] "It is generally supposed that there is some gain to the travelling public in the system itself. This, however, is doubtful. The advantage in most cases which has accompanied the zone system, which, however, is independent of it, consists in the reduction of fares.

"The reduction of fares in most cases is made with a diminishing charge for increasing distances, which is effected generally by adopting a fixed charge per zone, the zones increasing in length the further they are from the initial starting-place. In one instance the zone lengths are based on the square roots of the distances from the starting-point.

"A fare-table may be made with a diminishing rate as the distance increases, either by adopting gradually increasing lengths of zones, with a fixed charge per zone, or by adopting a gradually diminishing charge per zone, with a fixed length of zone. The same object can be gained by either plan. If we adopted a diminishing rate per mile to compute our passenger fares we should be following the latter plan.

"The zone system is merely the mechanical part of dealing with ticket issues and fares, and we should not gain by its adoption.

Hungarian plan nobody lost, everybody gained, perhaps not equally, but the principle of diminishing charge for lengthening distance is capable of any variety of applications, and is exemplified in postal, parcel, and telegraphic, and other forms of transit, and will be extended to railways some day to an extent far surpassing the Austro-Hungarian zone system. In those countries, the tariffs of the private companies are subject to revision every three years, and unfair discrimination is prohibited.

Italy has been used as an illustration against State railways, but when the facts are looked into their failure is accounted for. Before 1859 the country was divided into small states, and consequently the lines that did exist were isolated, running crosswise of the country, and not adapted for through traffic, which was lengthwise. The progress of political events resulted in a consolidation into four systems, two worked by the State, one by a private company at the State's expense, and one which was worked by the same company on its own account, of which the company was the grantee. The Government by a law of April 27th, 1885, leased them to two companies for a term of sixty years, but terminable at twenty and at forty years, the Government to receive one-half of any excess if a company earned more than 7½ per cent. The conditions included other subsidiary and very

The subject which has been confused with it is the amount of the fares charged, and the question of whether this should be uniform or diminishing according to distance.

"It would be of no practical moment to the public whether the lowered fares are computed on the mileage system or on an irregular zone system, or on one based on square roots, or on a complex one.

"The reasonableness of passenger fares from various points of view must depend mainly upon the population, and their location in relation to the railways, and the current wages of the country." (Annual report of the New Zealand Railway Commissioners, 1891.)

complicated arrangements.[1] On such a basis, it is no wonder that while the annual interest upon them amounts to over £5,500,000, they return the State less than half of it.

In 1878 an Italian Commission sat and investigated the whole question of State railways. It sat three years, and took evidence over all Europe, with the result that it decided against State management. Much has been made of this by the opponents of State ownership, and if State ownership means conditions such as those under which Italian railways have been constructed, or if it means leasing them to private companies to work mainly in their own interest, State railways would be a mistake. The Italian Government is primarily responsible. The country is crushed with debt to provide an enormous army, an immense fleet, besides loans to municipalities for ornamental rather than useful purposes, and with swarms of needless civil servants. The railways seem to have had their share of the general corruption. Originally they were planned rather with reference to the exigencies of war, than to the wants of trade and the development of the resources of the country, and the consequence was that they hardly earned their working expenses. English "Deputies" formerly

[1] In 1891 the Italian railways are given as follows :—

State Railways	4,927	miles
Company Railways ...	2,690	„
	7,617	miles.

Italian railways paid on capital in

1860	3·57	per cent.
1875	2·1	„
1880	2·8	„
1887	2·6	„
1892	1·63	„

and the total capital expended up to 1887 amounted to £121,600,000. The expenses of working in 1860 were 53 per cent., in 1892 70·4 per cent.

used their Parliamentary influence to prevent railways approaching their mansions. The Italian Deputy reverses that example and wants it at his door, and the jobbery rivals that under which the English and American railways were created.[1] If the railways are unprofitable the other public works are still more so, and from the same cause.

In a report to our Foreign Office Mr. Dering says respecting the Italian railways: "Most of these new lines, having been run through districts where no trade exists, and where all traffic is slight, with the idea of resuscitating commercial and industrial activity in them by the mere appearance of the steam engine, has led to the waste of much capital in premature speculation, which has proved hostile to the general economic condition of the country." Comparing French and Italian railways he says the

[1] In a letter from the Roman correspondent of the *Times*, April 16 1892, he says:—"The mere financial aspect of this investment as loss is trivial as compared with the corruption it opened the way to in the management of affairs, and the demoralisation of the constituencies by the introduction of a system which readily lent itself to private ends. This system supplied the means of corrupting whole electoral colleges by the construction of roads for local purposes to the general loss, and degenerated into a plan, to use the expression of a Ministerial journal, *Fanfulla*, 'to place a station before every man's door,' with the result of increasing enormously the mileage with little relation to the utility, and in some cases only for the advantage of private estates. There is in construction a 'direct' line from Rome to Viterbo (there being already a good communication by way of a branch from the main line to Florence), but, instead of being direct, it was diverted many kilometres from the shortest route to pass by the estates of two Deputies. Lines were greatly and systematically under-estimated. I cut from the *Gazzetta Piemontese* the following statement to show the extent of this abuse: 'The cost of the Novara-Pino line was double; the branch Gallarette-Laveno cost more than four millions over the estimates; the succursal of the Giovi, which should have cost sixteen millions, has cost nearly double; and no one knows what the tunnel of Borgallo will cost. The Calabro-Sicule, the Ligurian, the

former (in 1887) give "one-and-a-half more gross returns and double the net profits as compared with the Italian railways."[1]

It has been estimated that visitors to Italy carry to it annually over 20,000,000 sterling of foreign gold, which serves to pay the difference between her exports and imports, and interest on her external debt. It may be hoped that some portion of this large sum is due to the facilities afforded by her railways. Certainly the way to profit by them is not to sell them as some of her advisers recommend, nor to lease them, but to work them herself at a profit, a task which should not be beyond the skill of *Italia redenta*. Even bad as matters are, the State derives some 60,000,000 francs from its share of the gross receipts of the railways. Its mails are carried gratuitously, and it has very favourable terms for postal parcels.

In Denmark nearly the whole of the railways are owned by the State. In 1867 it took over the then completed section of the Jutland railways, which it

Pontebba, and the Gothard cost far more than the estimates, and yet the surveys had been made properly, while, of the complementary lines, not one had been studied in its details.' Jobbery never had a better field of operations than this. For nineteen railways ordered by the law of 1879, the actual cost exceeded the estimates by 200 millions, and the laws from that date to 1885 authorised 3,060 kilometres more; and when we consider that not a single system of railways in Italy pays the interest on the cost, after meeting working expenses, while some do not even pay the working expenses, we can estimate the folly of the railway system as a whole, and the extravagance of adding new lines, which, being less needed still, will increase the deficit out of proportion. But all the above load was charged on the patient nation before the year 1885, and no succeeding Government has any other responsibility than that of not having dared to put an end to such a drain on the credit of the State."

[1] Reports on Subjects of General and Commercial Interest Italy, No. 195, March, 1891.

had built, but worked by a private company. In 1892 the State railways were 210, and private lines 122 Danish miles (one Danish mile equals 4·3 English). The progress of the Danish railways, with occasional fluctuation, is a record of continued increase in every item during the past 25 years, and it can boast that only one person has been killed or injured during that period for each 3,500,000 of passengers. The State railways also work 112 miles (English) of sea route, and own 11 steamers, 11 steam ferries and 93 boats for ice transport.

In Sweden, with 4,900 miles of railway, the State owns a third, and, so far from repenting, took over two others in 1891 (the Lulea and Ofotin Railway, and that of the Swedish and Norwegian Railway Company). In Norway, of 970 miles of railway the State owns 928 miles, and companies forty-two miles. A dispute, however, has arisen between the Government, which owns 60 per cent. of the preference shares of the Norwegian Trunk Railway, and its other shareholders. The Government proposes that the railway estimates should be submitted to the Storthing annually "with a view to direct interference in its management, and to its assimilation in that respect to all the other railways of the kingdom." The shareholders protest that this would be illegal and possibly of danger to the interests of the shareholders."[1] It affords another illustration of the risks of State and company partnerships.

In Holland the State owns 927 miles, and companies 788 miles. As through lines they are of importance and compete with Belgium. In the last ten years (1882-91) Holland has expended over £8,000,000 in railways, including the purchase by the State of the Dutch-Rheinisch Railway, and over £4,000,000 more on the Merewede Canal, the Rotterdam Channel, and works at the mouth of the Maas. The Merewede

[1] *Board of Trade Journal*, February, 1893.

Canal connects Amsterdam with Utrecht, and will become the great waterway to the Rhine. It removes the heavy tolls of the old route, and saves nearly two-thirds of the time. It is also promoting extensions of Government railways in its Java possessions.

Of the total railway mileage on the Continent a large proportion belongs to the State and helps considerably to control the rates of the private lines.[2] Twelve States own larger or smaller portions of their systems. In most of them, whether public or private, the fares are lower than our own, some considerably. The *Board of Trade Journal* for February, 1893, quotes from the *Economiste Française* some interesting statistics as to the various rates of fares and

[1] The completion of the Government railway to connect Tjilatjap with East Java, Middle Java, and West Java is progressing satisfactorily, and the line will probably be opened for traffic towards the end of 1893.

A considerable extension of the Government railway net is under consideration, and already surveying for a new line from Probolingo to Sitoebondo *viâ* Loemadjang and Djember has commenced ; it is intended to connect this line with Banjoewangie (the most eastern part of Java) by a secondary line. A line from Batavia through Bantam is also proposed.—Diplomatic and Consular Reports, No. 1,029, 1892.

[2] The following table shows the length of State and private lines respectively in European countries in 1891 :—

Country.	State Lines. Miles.	Private Lines. Miles.
Germany	22,059 ...	3,311
Sweden	1,623 ...	3,276
Norway	928 ...	42
Denmark	880 ...	90
France	1,570 ...	21,341
Belgium	2,018 ...	792
Holland	927 ...	788
Italy	4,927 ...	2,690
Austria	3,163 ...	6,343
Hungary	2,749 ...	4,002
Russia	5,309 ...	12,750

proportions of passengers on the continental railways.[1]

The Continental States added third class carriages to most trains long before our own lines followed the example of the Midland Company in 1872.

[1] The greater number of European countries charge excess rates on their express traffic. In France, on the other hand, as also in Holland, Switzerland, and Russia, the rates are the same by all trains at whatever speed they run.

Countries.	Slow Trains. Rate per Kilometre.			Express Trains. Rate per Kilometre.		
	1st class.	2nd class.	3rd class.	1st class.	2nd class.	3rd class.
	Centimes	Centimes	Centimes	Centimes	Centimes	Centimes
Germany (State railways of Prussia)	10·0	7·5	5·0	11·26	8·34	5·84
United Kingdom*	9·7	8·1	6·5	12·61	10·53	8·45
Austria	7·5	5·0	2·6	11·25	7·5	3·75
Belgium	7·6	5·7	3·8	9·5	7·1	4·8
France (old tariff)	12·32	9·24	6·776	Same Tariff as for the Slow Trains.		
France (new tariff)	14·24	7·56	4·83			
Italy	11·3	7·9	5·1	12·43	8·7	5·65
Netherlands	10·63	8·5	5·31	Same Tariff as for the Slow Trains.		
Russia	15·0	11·15	6·65			
Sweden	9·8	7·35	4·9	11·9	8·4	5·6
Switzerland	10·4	7·3	5·2	Same Tariff as for the Slow Trains.		

Countries.	Percentage Proportion of Passengers.			Receipts Percentage Proportion.		
	1st class.	2nd class.	3rd class.*	1st class.	2nd class.	3rd class.*
Germany	0·6	10·2	89·2	4·9	26·9	68·2
England	3·6	8·1	88·3	12·2	10·6	77·2
Austria	1·2	12·7	86·1	7·5	27·6	64·9
Belgium	3·9	12·8	83·3	14·8	25·1	60·1
France	8·0	30·0	56·0	21·0	27·0	52·0
Italy	4·8	25·9	69·3	17·5	36·6	45·9
Netherlands	7·0	23·9	70·0	16·6	36·2	47·2
Russia	1·4	7·1	91·5	6·2	15·1	64·1
Switzerland	2·2	19·7	78·1	11·4	34·4	54·2

* Including also any other, such as fourth class, soldiers, &c.

The *Journal des Chambres de Commerce* publishes the following comparative statement of the chief lines constituting

In Greece the movement for the construction of railways is very recent. There are private lines and State lines, for the latter of which the State finds all or part of the capital. On some of the State and also the private lines the profits are to be divided after allowing 7 per cent. on capital ; on others the State takes half the receipts after allowing a certain sum for working expenses.

	Kilometres.
The privates lines working are	... 767
The State lines working are	... 148
The State lines under construction are	... 492[1]

Turning from European States to more remote nations that have to a less or greater extent undertaken railways, Japan is entitled to mention. The Japanese, though they permitted foreigners to make their first railways, exercised a vigilant supervision over the contractors, and are said to contemplate the purchase of the railways owned by

the European railway system.—*Board of Trade Journal*, July, 1892.

System.	Total Length in Kilometres.	Ratio to 1,000 Square Kilometres.	Ratio to 1,000,000 Inhabitants in Kilometres.
French	37,933	71	989
German	41,908	102	847
English	32,673	102	862
Austro-Hungarian ...	26,553	42	642
Dutch	2,577	81	564
Belgian	5,263	173	856
Spanish	9,878	20	582
Italian	12,907	45	302
Russian	30,957	6	302
Swiss	3,070	73	1,036

[1] Report of E. F. G. Law to the Foreign Office, No. 1,169, April, 1893.

companies[1] which do not pay so well as expected. Whether this intention will be realised or not, the Japanese Government decreed in 1887 that no private railway should be constructed which interfered with an existing railway. All rates are fixed subject to the approval of the Government, and at the expiration of the term for which the railway was granted the Government may purchase it at a price based on the average price of the shares during the previous five years.

Railway enterprise in South America has not had a very fortunate experience. Every possible mistake that could be made has there been accomplished. Frequent changes of rulers, some of them neither honest nor capable; foreign boards of directors thousands of miles distant from the lines they were supposed to control, with no local experience; capital borrowed from this country at rates impossible to be paid; lines made far in excess of possible demand; concessions for lines granted to persons who could not carry them out and who only obtained them in order to sell them; different gauges, and sometimes competing lines, have been characteristics of South American railways. With all these drawbacks, the railways have opened out and developed these vast fertile countries, and will ultimately compensate in most cases for the cost and mistakes of their construction.

In the Argentine Republic the capital invested in railways in 1891 was £74,000,000, of which £62,500,000 belonged to European companies. The State railways, national and provincial, only now re-

[1] In Japan the length of the railways is 1,428 miles, of which 534 miles belong to the State and 894 miles to private companies; and these are expected to be taken over by the State. The Japanese State railway authorities possess a vast building and repairing shop for repairing and fitting, and they expect shortly to be able to construct their own locomotives.—*Board of Trade Journal*, May, 1893, p. 538.

present about £10,000,000, the State having sold some of them. The net profit on the whole railway system is only about 1¼ per cent. To borrow capital at four or five times that rate does not seem a very provident proceeding. The report of the Minister of the Interior (13th May, 1891) states the liability on account of the guarantee of the Argentine Government on eleven railways at £921,000 per annum, but what the full liability will be when all the railways become entitled to their full guarantee is not known; if all were carried out it would represent an annual liability of £1,500,000.[1] With crushing debt on the general finances (£105,000,000 sterling in 1891), the prospect of payment of the railway guarantees does not seem hopeful. On the other hand, the State was to receive 50 per cent. of the gross receipts. How this was to be accomplished, when only two out of nineteen lines worked at less than 50 per cent., ten lines required over 80 per cent., several absorbed the

[1] (Diplomatic and Consular Reports to the Foreign Office, Nos. 111, 186, 231, 1000, 1068, and 1,147 for 1887, 1890, 1892, and 1893.)

The *Financial Times* of December, 1891, gave the following list of the companies with guarantees which are best known in England:—

Company.	Amount of Guarantee.	Guarantee.
	£	Per Cent.
Argentine Great Western	2,800,000	5
Buenos Ayres and Pacific	2,312,340	7
Buenos Ayres and Mercedes Extension	432,000	7
Transandine...	1,191,000	7
Bahia Blanca and North-Western	4,716,260	5
Cordova Central (Central Northern Section)	4,166,000	5
East Argentine	969,600	7
Argentine North-Eastern	5,000,000	6
Villa Maria and Rufino	808,910	6

whole receipts, and two considerably more, is not very clear.[1] These guarantees expire at various dates from

[1] It is interesting to compare the earnings and expenses of continental lines per mile run in 1887 and 1888, as given by Mulhall, with those of Argentine :—

Pence per Mile run.

	Receipts.	Expenses.	Net.
United States	69	48	21
Germany	77	41	36
France	64	33	31
Italy	48	32	16
Austria	76	42	34
Switzerland	61	33	28
Sweden	48	30	18
Holland	37	21	16
Belgium	50	26	24

Mr. Herbert gave the working expenses of the Argentine railways for 1890 as follows :—

Company.	1890.
	Per Cent.
Buenos Ayres and Rosario	58
Central Argentine	60
Great Western	130
East Argentine	99
Great Northern	89
Buenos Ayres Western	57
Pacific	87
Andine	98
Entre Rios	98
Buenos Ayres Northern...	—
Ensenada	54
Southern	47
Santa Fé Western	99
Santa Fé Colonies	79
North-Western Argentine	100
Chubut	63
Chumbicha...	168
Cordova Central	49
Cordova and Santa Fé	82

1900 to 1911, and as few of the guaranteed railways can work for 50 per cent. of their gross receipts, the chances are that the companies' debts to the Government will increase, and they will be bankrupt when the concessions cease.

It is said that the Argentine Government gave no guarantee, that it merely lent money at 7 per cent. on the security of the railways, to help the payment of shareholders' dividends; that the British investing public were misled by the promoters of these companies in representing as a guarantee what was merely a loan; and that in any case the surplus of gross earnings after deduction of working expenses should be repaid in diminution of the guarantee. The question was submitted to arbitration.[1] The Argentine Government also contended that it had received no portion of the 50 per cent. gross receipts. Many Argentine concessions were granted on insufficient grounds—little bits of official favouritism which fortunately the promoters could not carry out, thus saving the country further onerous obligations. A later Report states that while in five years (1887 to 1891) the railway capital increased 80 per cent., earnings diminished 9 per cent., and profits 35 per cent.; that with a few exceptions[2] thirteen lines out

[1] The result in the case of the Buenos Ayres and Pacific was—(1) The guarantee must be paid in full without deduction of any kind half-yearly by the Argentine Government, even if net proceeds should not be paid; (2) net proceeds, meaning 50 per cent. of the gross proceeds, must be paid half-yearly to the Argentine Government; (3) interest to be allowed; (4) the Argentine Government cannot delay payment on account of questions with the Buenos Ayres and Pacific Railway. In the case of the East Argentine Railway the effect is to compel the company to accept £40,000 instead of £68,000 guaranteed interest due at the end of last year (1892).

[2] The exceptions in 1891 were the Great Southern Railway, earning 4 per cent.; the Western, 3 per cent.; the Buenos Ayres and Rosario and Ensenada lines, 2½ per cent. each; and the Central Argentine, ¾ per cent.

of twenty-seven were running at a loss. Nor is this to be wondered at considering that, with a population of 4,000,000, it has a mileage seven times greater in proportion than Europe, and $3\frac{1}{2}$ kiloms. as compared with 5 kiloms. in the United States per 1,000 inhabitants.[1]

If the Argentine Government had kept the railways in its own hands, employed experts instead of officials without training or knowledge, borrowed only what it could afford to pay, in fact, made haste slowly, how different a position would it have occupied. As it is, while English investors have lost large sums, those benefited do not seem to be very grateful. President Pelligrini complained that the London directors of some of the guaranteed Argentine railways drew fees amounting to about 4 per cent. of the gross earnings, which certainly seems excessive. Mr. Herbert's report says, "Promoters of railways have much to answer for to the public for having made such an arrangement," and he refers to an opinion held by some "that a deliberate attempt is being made to confiscate the railways of foreign companies, by means of hostile legislation and official persecution," adding that, "without thinking this conclusion quite correct, it cannot be denied that there is a marked official hostility shown to foreign railways. There are problems unsolved connected with the foreign owned and managed railways of the Republic. *It is impossible that the chief management should continue to be located in another hemisphere.*"

A later report states that there is a deal of friction

[1] This was not enough, however. Besides the 12,281 kiloms. open, there are 11,260 kiloms. concessions with guarantee, and 5,175 kiloms. without it, bringing the total to 8 kiloms. per 1,000 inhabitants, or 15 times the European average! The probability, however, is that the *concessionaires* will make default. The National Board of Inspection of Railways recommends the Government "not to accord longer delay to those who have not fulfilled their conditions.

"between the Government and the railway managers," that the former finds it irksome to "make good the interest on unproductive lines; but has only itself to blame, as railway concessions have been granted without being based on any fixed plan, either as to the wants of district to be served, or consideration of railways then in operation." Then in winter access to railway stations is almost impossible after a few days' rain, as there are no "made" roads outside the capital and principal towns. It is an axiom in Argentina that the only practicable road is a railroad, due partly to the level surface of the country (the whole country is a road) and the absence of stone; this does not apply to Uruguay, where there is plenty of stone, but the same absence of roads. In such countries time seems to be no object, and if rain makes traffic impossible, they wait until it is over. The profit of the railways and the improvement of the country would be materially assisted by light, cheap railways, better than by some of the more expensive of railway enterprises.[1]

[1] Our representative at Buenos Ayres, in a recent report corrected to January 31st, 1892, makes an interesting comparison of the

Revenue, Population, and Resources of the Australian Colonies and the Argentine Republic.

		Australia.	Argentine.
Total area ...	Acres	1,936,727,000	729,000,000
Cultivated	„	6,700,000	14,900,000
Population ...	Number	3,800,000	4,000,000
Cattle (1889) ...	Head	8,659,000	15,865,000
Horses	„	1,336,000	3,695,000
Sheep (1891) ...	„	76,000,000	114,000,000
Revenue	„	£29,000,000	£4,800,000

Mr. Herbert remarks:—"As regards the Public Debt, that of Australia is £185,000,000, and the Argentine about £128,000,000, exclusive of paper money issues, railway guarantees, and

In Brazil, the conformation of the country rendered construction of railways expensive. The revolution, which overturned the Empire and substituted a Republic in 1889, depreciated the nominal value of the railways very considerably. But political uncertainty was a minor cause of the depressed condition of the Brazilian railway system. The policy of stimulating railway construction by guarantees and subventions has been followed with evil results. There was also a misunderstanding as to the nature of the guarantee.[1] Investors attached one meaning to this guarantee, and the Government another. The former thought they were sure of a safe 7 per cent. whether the railways paid or not. This was

cedulas. The Argentine debt is equal to about twenty-nine years' revenue (taking the dollar at the present depreciated rate), while that of Australia is equal to about six years' revenue. In Australia there are about 11,500 miles of railway, almost wholly Government property, and about 44,000 miles of telegraph, whereas in the Argentine there are about 7,000 miles of railways, but a small portion of which belong to the Government, and about 17,000 miles of telegraph."

[1] The amount of capital on which the Brazilian Government guaranteed interest was—

	£
Seven per cent. on	16,543,611
Six per cent. on	1,760,625
Five per cent. on	485,660
	18,789,896

The total length of Government lines at the end of 1888 were—

Open to traffic	1,299 miles.
In construction	494 miles.

Approximate cost of construction, £22,009,050.

	£
And the receipts in 1888 ...	1,595,673
Expenditure	1,064,142
Showing a balance of	531,531 in favour.

said by *concessionaires*, "promoters," and those with immediate interests to serve. But the Government in guaranteeing 7 per cent. meant that if the earnings were greater than the outlay, and the company earned enough to pay the guaranteed interest, the Government paid nothing.[1] It was estimated that up to 1888 the loss in construction and early working to the Government amounted to about £30,000,000. A law of 1873 authorised the Government to grant concessions and guarantees of interest at 7 per cent. on capital up to £10,000,000 sterling, on such railways as earned a net profit of 4 per cent., but it was stated in 1888 that they had only returned 2½ per

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The total of Brazilian railways to June, 1892, was as follows :

State railways	1,533	miles
Subventioned railways ...	3,018	„
Non-subventioned railways ...	237	„
Open for traffic	4,788	„
Under construction	2,832	„
	7,620	„

besides, there are 3,345 miles proposed, of which about 3,000 are to be subventioned. (Diplomatic and Consular Reports, Nos. 32, 504, 807, 1,136, for the years 1886, 1889, 1890, 1892.)

[1] Investors "cannot too clearly understand that the Brazilian Government do not guarantee the individual shareholders anything at all upon their stock. The guarantee of the Government is a guarantee of so much per cent. to the railway company on a certain sum to be expended in construction. It is, therefore, simply a question of so much extra money per year above the balance of working and earnings to be divided amongst the shareholders. If the ordinary balance shows a dead loss, the Government pay over the whole amount guaranteed, to be applied first to wiping off the company's deficits, and the balance comes in for division amongst shareholders. If the company, on the other hand, are able to pay the guaranteed percentage out of ordinary balance, the Government pay nothing to the company, and any earnings of the company over and above the guaranteed percentage are the property of the Government."—Diplomatic and Consular Reports, Brazil, No. 32, 1886.

cent. Up to 1884 there had been during the previous ten years an average yearly deficit of £2,800,000. Two of the oldest railways in Brazil had cost the State five and a half millions for guaranteed interest. But several others are mentioned in the consular reports as showing considerable deficits in 1888 and 1889, short of paying working expenses.[1] One line, Dom Pedro II., owned by the State, showed a surplus of £640,641. On sixteen guaranteed railways, with a capital of £16,702,119, the State had spent in guarantees £11,331,711. Of fourteen companies controlled by English boards of directors, only two are self-supporting, the rest rely on the Government guarantee. The guaranteed money of the Government was often spent in merely keeping the traffic going, and sometimes, though it paid debenture holders, little or nothing was left for shareholders. One railway, the San Paulo, was very successful, and, besides dividing its net receipts over 8 per cent. with the Government, repaid more than it received from the guarantee.

By transferring its duty of providing the public

	Deficit.	For
	£	
[1] Examples are Natal and Nova Cruz	8,603	1888
„ „ Conde d'Eu	9,704	1888
„ „ Southern Brazilian and Rio Grande do Sul...	7,969	1888
„ „ Alagoinhas	8,732	1889
„ „ D. Theresa Christina .	25,071	1889

This last line, with a guarantee of 7 per cent. for thirty years on a capital of £631,041, had in 1884 gross receipts of £864, and expenses of working £6,247; in 1888 receipts £261, and expenses £2,152; though the Government paid the guarantee, the shareholders got nothing. The money goes to keep up the traffic and to pay the debentures. On the first-mentioned line (the Natal and Nova Cruz) the Government guaranteed 7 per cent. on their capital of £549,600. There were deficits every year, and down to 1887 the Government had paid altogether £343,227 to this one line. — Foreign Office Reports, Nos. 504 and 807, 1889 and 1890.

roads to private speculation, the Government does not get rid of responsibility either to investors or the public. If it hands them over entirely to private companies, as in America and England, the State has to interfere, but fails to prevent abuses. If it constitutes a semi-partnership, as in France and India, where the State is secure and respects its contracts, it has to use constant supervision as troublesome as entire management. But in the cases we are now considering, where the State is liable to frequent revolutions and local wars and, above all, corrupt administration, and is in constant financial embarrassment, and is reckless in its bargains, because indifferent to fulfilling them, the partnership of the State with the railway companies involves a chronic conflict.[1] When complaint was made of the losses of investors, they were told by the Brazilian Minister of Agriculture that they "had no reason whatever in their complaint, and that they ought to have found out before the line was made what it would produce, independently of the Government guarantee." Then, too, the Government felt it needful, to protect itself and the public, to interfere with the management in order to prevent the raising of rates and fares which the companies would like to increase to make up for the depreciation of the currency, and also to keep the roads and stations in good order. Thus, under a decree of the 20th June, 1891, it appointed a number of officials, and to describe their functions even invented a new word, to "fiscalise," *i.e.*, to "assist at the deliberations of the directors," and "to identify themselves with the undertakings at all stages of their development in order to be in a position to conveniently inform the Government, and to make themselves acquainted with the accounts for the payment of guaranteed interest." In October 20, 1891, the service

[1] Foreign Office Report, Brazil, No. 1136. 1892.

of inspection ("servico de fiscalisçao") was reorganised. In accordance with the regulations laid down by this decree all *concessionaires* of railways in Brazil are obliged to contribute towards the cost of inspection as follows:—

	Over 60 Miles in Extent.	Less than 60 Miles in Extent.
	£ s. d.	£ s. d.
Subventioned railways ...	1,687 10 0	...
" "	...	1,350 0 0
Non-subventioned railways...	1,125 0 0	...
" "	...	900 0 0

Public opinion seems to be that neither the Government nor the companies can be trusted, but that matters are better managed when each is watching the other. The railways are, however, increasing their traffic, and may ultimately be expected to right themselves, but the English investor, whose payment happens to be fixed in currency (instead of gold), must expect to suffer considerable loss. The Geral Railway Company is an interesting instance of Brazilian finance. It was formed to combine several companies, and with a nominal capital of £22,500,000. "In June, 1891, an attempt was made to float a loan in London and Brazil for £14,500,000 for the conversion of the bonds of the various companies controlled, but it was not accepted in Europe. Some £2,500,000 was, however, subscribed in Brazil. This £2,500,000 was to be applied to the payment of the floating debt, and for new works, as well as for the expenses connected with the loan. None of the money appears to have been so applied. The directors and their friends began to speculate wildly, and so-called debentures of £20 were issued without limit, and sold in the market at any price they could fetch. They were sold at all prices, ranging from 200 milreis, gradually

falling as the emissions increased, and when the final crash came, at the end of 1891, they had dropped to 14 milreis. Since then they have dropped further, and the £20 debentures are now quoted at 2 milreis. It is stated that the total emission amounts to 6,000,000 debentures, or £120,000,000 sterling, but no official confirmation of this has yet been published." [1]

Mexico has 6,583 miles of railway, very little of it owned by the State. Its position in relation to European lenders is different to that of Argentina, Brazil, and Uruguay. Its foreign debt is about £19,000,000, but it pays its way, keeps its engagements, and is not given to paper inflation of the currency. While its prosperity in the future depends greatly on the extension of its railways, it defers them until present obligations are lessened. Since 1876 it has had a stable government, anxious to promote its prosperity, though its railway management, up to the present time, seems not to have been very wise, if we judge from our consular reports. Its railway experience commenced with a short line between Vera Cruz and San Juan, the contract for which was cancelled in 1850, for non-fulfilment of conditions. For this railway, valued at $500,000, the company received a charge of 2 per cent. on import dues at Vera Cruz, and obtained $1,939,131, or four times its value. Then the Government took it over, extended it at a cost of $715,234, sold it to a *concessionaire* for $750,000, and on this short line of twenty-four kilometres made altogether a loss of $1,904,373. A consolidated fund of public debt of

[1] A recent deputation to the Foreign Office called attention to the fact that while the Government in 1881 had sanctioned the construction of the Great Northern Railway of Brazil, on the faith of which the company incurred large expenditure and heavy liabilities, yet the Government, on the plea of State interests, granted rival concessions which rendered the property of the company valueless.

$8,000,000 was then created payable in fifty years, with interest at 5 per cent., as a subvention to the railway company, in return for which the *concessionaire* was to give the Government 20 per cent. of the profits and certain privileges. Soon after this agreement a revolution broke out, and the works were suspended for three years. In 1861 the new Government extended the concession, but in a few months war broke out again, and the work was stopped. The *concessionaire* next agreed to make another extension at a cost of nearly $2,000,000, also to be repaid by the Custom House at Vera Cruz. In 1864 the *concessionaire* (always the same Mr. A. Escandon) transferred his concession to the Mexican Railroad Company, as well as his contracts with a London firm to construct a trunk line to Puebla, and it was approved by the then Government of the Emperor Maximilian. The empire fell, and the new Government refused to recognise that agreement; but in 1868 it confirmed the transfer to the company, and in 1873 the main line was inaugurated, having a capital of about £8,300,000, most of it borrowed at rather onerous rates, only partially paid.[1] Our consul bears testimony as to the effect of the railways in quickening the productive energies of the country, strengthening the powers of the Government to protect life and

[1] Capital :—

	£
Ordinary stock	2,254,720
First preference 8 per cent. stock ...	2,554,100
Second preference 6 per cent. stock ...	1,011,960
Six per cent. perpetual debentures stock issued at par in 1880	2,000,000
Second mortgage stock less £16,900 drawn, issued at 91 per cent., March, 1884	249,600
Total authorised capital	8,070,380

(Report on Subjects of General and Commercial Interest, Mexico, No. 116, for 1889.)

property, and in rendering revolutions "impossible." He mentions one drawback, viz. :—

> That through and foreign traffic are granted facilities which are not extended to local traffic, and shippers of goods at either end of a railway can obtain a better rate than those sending goods from intermediate stations. Consequently, it is often cheaper to send goods over the roads by mules and donkeys than to use the railroad, and this is done to an enormous extent throughout the country served by the various trunk lines, it being not an unusual occurrence to see loaded trains of both animals following the roads or tracks skirting the railroads—traffic which is lost to the railway. Goods can also be carried past their destination and back again at less cost than if they were sent direct in the first instance.

Meantime the whole country (a country, be it remembered, of an "area of 741,791 square miles, larger than Great Britain, Germany, France, Belgium, Spain, and Greece combined") is being parcelled out amongst numerous *concessionaires* on the most extraordinary principles. The report above quoted mentions nineteen concessions, and that of 1890 (No. 170) a still larger number, mostly to private persons, many of whom will probably sell them at a profit that must ultimately be paid by the public.

Then again, the proposed concessions for new railways are framed on the most extraordinary want of system. Like Argentina, which has four different gauges, so these Mexican concessions are stated to be, some broad gauge, some narrow gauge, some "gauge and traction optional." Some have a subvention according to the width of gauge to be decided on. Some have no subvention. The same report says :—

> The construction of branch lines which would serve as feeders to the trunk lines already in operation, or projected, is what is required to develop traffic, and not railways running parallel with each other, or serving the same districts. It is a matter of regret that this policy has not been considered more by the present Administration when granting the numerous concessions for the extension of the railway system in the Republic.

The latest report on Mexico (1,150, February, 1893) states that the lavish granting of concessions and subventions for railways has been happily checked, and though the future obligations are still considerable, they are being rapidly reduced, owing to the non-fulfilment of the conditions. The Government issued a loan of £2,700,000 for the construction of the railway across the Isthmus of Tehuantepec, and had to spend £195,279 to acquire the rights of certain American *concessionaires*. To substitute for State ownership a vicious circle of concessions and subventions to be charged on Customs duties, and to contract loans at high terms to meet these obligations, is to squander money that would have gone far to provide the railways actually required. It is pure waste, neither benefiting the railway companies nor the nation. The railway debt is estimated at over 61,000,000 dollars and the payment on that account at 6,901,612 dollars; further, that while no statement has ever been drawn up of the actual amount paid by the Government for railway subsidies, large payments in the last decade have been made under this head, and the yearly deficits really owe their origin to payment for railway subsidies over all other obligations. Our representative declines to decide whether the subsidies to the railways have proved a paying investment, though he admits that the railways have largely increased the value of property and stimulated the production of articles of export.[1] More than this can be said, if it be true, as stated at a meeting of shareholders of the Mexican Southern Railway Company, that the present cost of transport by mules from Oaxaca to Tecomavaca was £10 per ton and required 10 days, but which when the railway was completed would cost 25s. per ton and only as many hours as it now took days.

Although Mexico is so large, its population

[1] Diplomatic and Consular Reports, No. 1150, February, 1893.

(10,500,000)[1] is very small; it is not like the United States, a country to which there is a large migration, where railways seem almost to create the very population to use them.[2] One report states that it is exactly the reverse in Mexico, and attributes it to the manner in which the land is held in so few hands, estates of from 1,000,000 to 3,000,000 acres being not uncommon. "The Government frequently gives grants of land to foreign companies of 1,000,000 acres and over. These companies, as a rule, have not capital sufficient properly to develop such a large extent of land, which is bought, in many cases, with a view to profit by a 'boom' at some future date." These evils are in process of removal. The Mexican railway was constructed at an extravagant cost by an English company, and did not pay. The Americans understood better what was required, and obtained the preference in railway making, while the proximity of the United States developed the trade between the two countries, whereas that between Mexico and our own country is insignificant. The American lines connect Mexico with the great American railway system, and give every village access to the material resources of the United States. The companies last

[1] Whites 2,000,000
Mixed breeds 4,500,000
Indians 4,000,000

10,500,000

Its population is 14·4, Uruguay 9·5, and Argentina 7·5 to the square mile.

[2] Of the formation of railways in the United States, it is jokingly said: "We commence building a line and send an engine with a barrel of beer ahead as far as it will go. Then we deposit the barrel somewhere in the prairie. A bar and some Germans come around it, and soon there is a small colony, with a church and a school-house. Meanwhile we push our line ahead for five or six miles and repeat the beer-barrel business, and by the time the whole road is ready we have quite a nice little population along our line."

year (1892) adopted a pooling arrangement to raise rates, in some instances to the extent of 50 per cent. The companies have committed the folly of constructing competing lines—the Inter-oceanic runs parallel with the Mexican Railway, and there is not enough traffic for both—and there are other competing lines, reducing rates, by their competition, below any reasonable sum. Of course the next process is combination to raise them—in other words, to compel the public to pay for the mistake. The Chamber of Commerce of Mexico complained of the serious injury inflicted on commerce, and the Government warned the companies not to charge tariffs it had not authorised.

In Uruguay there was not the same urgent necessity for railways, as the population is small (about three-quarters of a million), and its important towns are on the river side, giving cheap communication with its capital port of Monte Video. But the Central Uruguay Railway was at first a great success, worked at a moderate expense, and paying good dividends. Its directors could not let well alone. In 1889 they raised £640,000 in 5 per cent. preference shares for what they thought necessary improvements. Two other extension lines were constructed, which there was clearly not traffic enough to support, and the Central Railway agreed to work them at a percentage of their receipts, and guaranteed net revenues on them to a considerable amount. There were in 1890 about 445 miles of railway, but considerably more are under construction and survey. They have been constructed principally by English contractors, who guaranteed interest *during construction.* The Government in its turn guaranteed 7 per cent. for forty years on a certain specified outlay, but owing to its financial difficulties the 7 per cent. was reduced to $3\frac{1}{2}$ per cent. This guaranteed payment was to be by an issue of £20,500,000 consolidated debt bonds,

secured on 45 per cent. of the gross receipt of the Custom Houses, and if not sufficient, the Government will make up the deficiency from other sources. The Government promised to issue no new loan for three years from the date of the above agreement (August 26th, 1891).

One great obstacle to the success of the railways in Uruguay is the want of cart roads as feeders. Our consul says that, except in the neighbourhood of Monte Video, "there is not throughout the entire extent of Uruguay a mile of road either in pavement, macadam, corduroy, or any other way at public expense; not a bridge constructed by Government care, or at the public outlay; nor is there a decent causeway or embankment." The cost of transport is consequently enormous, not infrequently 2s. per ton per mile, and several pairs of stout oxen may be seen dragging loads, which on decent roads could have been drawn by one pair in a quarter of the time.[1] His successor, writing three years later, says this state of things remained unchanged, and that "agriculture is practised alongside the railway alone; elsewhere the cost of carriage would eat up the profits before the produce could reach a market."[2]

It is needless to give details of the systems adopted in the other States. The more important are in Peru, which had in 1889 1,630 miles. Mulhall states that in 1870 and 1872 the Government borrowed in London £49,000,000. In 1877 the lines then made cost £35,990,000, of which £25,670,000 came from the State. The Peruvian line, designed to bridge the Cordilleras and reach the great silver mines, is one of the most gigantic works in the world.

In Chili the principal line is owned by the State,

[1] Diplomatic and Commercial Report, Uruguay, No. 129, in 1887.

[2] Diplomatic and Commercial Report, Uruguay, No. 794, in 1890.

and it is well made and well managed. It runs from Santiago to Valparaiso and south to Concepcion, Angol, and Victoria. Its trains are among the best and speediest in South America. Chili had in 1889 1,750 miles, of which the State owned 750 miles, and the profit is stated to be 4·7 per cent. The Government contemplated taking over some lines and running them at a cheap rate for a time. Chili, like the other South American republics, was liberal in granting railway concessions, among others, to her various saltpetre districts, probably before she knew their real value. The result, however, was to confer on the nitrate railways a great monopoly of enormous value to them, with little gain to the Government, and great enhancement of price to the consumers. The Government and the railway company in 1891 and 1892 had considerable disputes and even recourse to diplomatic interference, all of which would have been avoided if the State had retained its mineral wealth in its own hands and made its own railways. These railways at Iquique, Autofagasta, &c., formed to carry nitrate to the coast, carry few passengers. A new line between Huara and Iquique is contemplated, and will, it is said, greatly affect the monopoly of the nitrate railways. The line from Mollendo to Arequipa is the principal link between Bolivia and the Pacific Coast.

The Republic of Guatemala has 72 miles of railway, and has recently authorised several short lines, on which it guarantees a subsidy of £1,630 per mile. It has also adopted a proposal to make a national railway of 180 miles between the forts of San José with Port Barrier at a cost of £1,600,000.[1]

In Venezuela there are 282 miles in operation, and 1,240 projected. In Columbia there are 212 miles,

[1] Diplomatic and Consular Reports, No. 1,096, 1892.

and several lines are contemplated by English and American syndicates, but financial difficulties impede them. A recent Consular Report dwells on the deplorable state of the roads, which during the rainy season (eight months in the year) are nearly impassable. Goods take three weeks from Houda to Bogota, the capital—twenty-one days to do 42 miles. This country, the consul adds, is amply endowed by nature with a rich soil, great mineral wealth, and only wants railroads and good highways to develop its resources.[1]

The same remark applies to many of the other South American Republics.[2] If the financial collapse makes the various Governments of these Republics and the British investor more cautious, it will be advantageous to all. The advantages of the railway in developing and civilising these vast fertile regions will in time atone for the past. New and thinly populated countries cannot, like rich and old-established ones, raise their railroad capital from their own resources. They *must* borrow. But the wisdom of the transaction depends on its terms. To borrow at high usurious rates was a mistake, as the borrowers and lenders have since found out. To repay them as Argentina does, not in gold, but in paper worth 65 per cent. below its par value, was a greater error, besides being dishonest. But to part with the lines to foreign owners instead of, like our colonies in Australia and South Africa, retaining

[1] Diplomatic and Consular Reports, Colombia, No. 1,148, 1893.

[2] Other lines are stated to be Bolivia, 81 miles ; Costa Rica, 180 miles ; Ecuador, 22 miles ; Hawaeian Islands, 56 miles ; Honduras, 69 miles ; Paraguay, 94 miles, reported to have been sold for $1,575,000 ; but contemplating an important line on its own responsibility, and for which it has raised a loan ; Salvador, 41 miles ; Nicaragua, 99 miles ; and San Domingo, 72 miles.

the ownership was the greatest mistake of all. Every shilling of capital could equally well have been obtained without it, from the plethoric foreign investor.[1] It saves trouble to the Government to hand over their railways to *concessionaires*, who sell the concessions again to others, a system which the Brazilian Minister of Agriculture stopped in 1888, except to those who meant to carry them out themselves. If, however, concessions and guarantees are to be made, the better plan would be for the Government to give a premium on good management, to be expended on reducing fares and freights. But Governments are paid to govern, to fulfil duties, not to shirk them, and the want of confidence, produced by non-fulfilment of the agreed conditions, will probably retard the development of the railway system in these countries. When orderly government and honest administration have restored confidence, the States will find it better policy to buy their railways instead of selling them.

Where the State does not own the railways, it either interferes with the management or sometimes plants its own agents and officials upon their staffs, failing which the public pays the penalty in submission to the arbitrary dictation of the companies. There is a wide field for the development of the railway system, which extends over but a small portion of the

[1] "On the 31st December, 1890, the aggregate debt of the colonies was as follows:—India, £215,000,000; Australasia, £183,000,000; South Africa, £29,000,000; Canada, £50,000,000; West Indies, £3,250,000. In addition to loans to Governments, vast sums have been raised for public works and private enterprises in the colonies. On railways alone over £300,000,000 have been expended, and by far the greater proportion of the money has been raised in London on terms almost as favourable as those which the Home Government can obtain." (Lord Brassey at the Colonial Congress, 1892.) The public debt in 1891 was, for Argentine £1 0s 1d., and for Uruguay £1 6s. 8d. per head, and largely in excess of any other country.

earth's surface[1]. The utility will greatly depend upon the mode in which the railways are administered, but the facts seem to show that where tolerably good government prevails, the interests of the community are best served when these public highways are in the hands of the State for public benefit, with no secondary interests to be considered.

NOTE C.

EXTRACTS FROM COMMERCIAL (No. 11, APRIL, 1891) CORRESPONDENCE RESPECTING ZONE TARIFF FOR GOODS AND PASSENGER TRAFFIC ON RAILWAYS IN AUSTRIA AND HUNGARY.

Buda-Pest, November 20, 1890.

THE Minister of Commerce, M. de Baross, encouraged by the success which has attended his measures in regard to passenger traffic, has now elaborated a new local tariff for goods traffic on the State railways in Hungary, which is intended, by a considerable reduction and simplification of rates, to stimulate and facilitate this branch of railway activity. . . . Articles of subsistence would be carried to the markets at rates far more moderate than had hitherto prevailed, while the rates for goods intended for export would also be diminished. Moreover, coal, iron, artificial manures, etc., would be transported to the most extreme limits of the country without the cost of transport rendering their disposal in the market a matter of difficulty, as

1

Countries.	Miles of Line.	Per 100 Square Miles Territory.	Per 10,000 Inhabitants.
Europe	136,865	3·62	3·84
North America	182,937	2·61	22·30
South America	16,552	0·24	4·55
Asia	18,798	0·46	0·26
Africa	3,992	0·68	5·13
Australia	11,137	0·36	29·09

Canada has 30·35 miles, the United States 25·90, and Great Britain and Ireland 5·17 per 10,000 inhabitants.

had hitherto been the case. Some difficulties and disappointments accompanied the extension of the railway system in Hungary, and it came to be generally admitted that the safer and wiser course would be, where feasible, to substitute State for private management and control. The purchase by the State has proceeded so far, that while in 1867 there were only 75 miles of railway in the hands of the State, the length of State railways in 1889 had increased to over 3,800 miles, out of a total railway net-work of about 6,500 miles. Although great improvements were made in the railway system, and although the management by the State proved to be very beneficial, the general situation was not so encouraging and satisfactory as could be wished. Fares were high, and the comparatively few trains which ran were but sparsely occupied. The public showed little disposition to take advantage of the railways, and while it was estimated that in Austria each individual made two, in Germany five, and in Great Britain fifteen journeys in the year, the average in Hungary was not so much as one annual journey per head. It was considered desirable from many points of view to stimulate a movement among the population, and not only to facilitate the inter-communication between neighbouring places, but also from distant points of the country to the capital and large towns.

The Minister of Commerce and Communications, M. Baross, had devoted much attention to the subject, and he eventually elaborated a complete and radical reform in the system of passenger traffic on the State lines. This system, which came into force on the 1st of August, 1889, is now well known as the Zone Tariff, and is as simple in its conception as it has proved successful in execution. It was hoped that, with more frequent inter-communication, the various races of the country would become better acquainted with each other; that the peasant would not remain stagnating in his native village; and that, with a wider horizon opened to their view, the general educational and intellectual level of the people would be raised. Although, as is the case with several enterprises in Hungary—and it should be noted to the credit of the country—philanthropic and patriotic motives were, perhaps, chiefly operative, the financial interests of the State railways were not left out of sight. It was on this point that criticism was chiefly brought to bear when the new system was inaugurated, and doubts were expressed whether the bold scheme of M. Baross would not entail a serious pecuniary loss. Results have successfully proved that there is no fear to be felt on that score, and that the revenues of the State lines have benefited as well as the public.

Whether the system is applicable in countries where railway traffic is more largely developed than in Hungary is a

question which can only be decided by those competent to judge of local circumstances ; but it may be accepted as an undoubted fact that, with the conditions existing in Hungary, the measure of M. Baross has been an unqualified success, from whatever point of view it is regarded. The conditions existing in Hungary may be shortly stated to be a large tract of country where distances are great, where the population is relatively sparse, and not animated with a restless desire of movement ; where the motives which induce people to travel, for business or pleasure, were not so imperative as to compel them to do so, irrespective of cost, and where the trains were running half empty. Moreover, the system was introduced only on the State lines, where the Minister had a free hand, and was little hampered with questions of rivalry and competition.

Special tickets are provided (for hotels, post-offices, etc.) in the shape of paper coupons. The extra expenditure attending the Zone Tariff has hitherto been merely the cost of supplying the fresh sets of tickets. M. Baross is ordering an additional number of passenger carriages, but this outlay would have been necessary in any case, as, since 1882, he has had no new carriages, and the number with which the State lines were then provided did not suffice for the increase of the lines of railway which have since been made and acquired by the State.

There was, in the first twelve months after the introduction of the Zone Tariff, an increase in the number of passengers carried amounting to 7,771,467, or 136·7 per cent. over the number in the preceding twelve months. The total receipts for the twelve months from the 1st August, 1889, to the 31st July, 1890, from passengers and luggage, were £954,347, and for the preceding twelve months, viz., from the 1st August, 1888, to the 31st July, 1889, the receipts were £785,334, or an increase of £169,013 since the introduction of the Zone Tariff. The increase is maintaining itself, as the statistics from the 1st August to the 30th November, 1890, show an increase of 1,076,114 passengers carried, and of £26,040 receipts over the corresponding four months in 1889. The above figures sufficiently prove the financial success of the scheme.

It is understood that the first quarter from which the idea of a system of this nature emanated was England. In 1865 Mr. Brandon first brought before the public a proposal aiming at a uniform fixed charge for the transport of passengers on railway lines on the penny postal system, and sought to prove that its introduction would not cause any diminution in the receipts. In 1869 a Dr. Perrot started the idea of a reform of the system of passenger transport in the sense of the Zone Tariff actually now in force in Hungary, and this notion he subsequently modified in the sense of a uniform tariff on the Brandon system. These

ideas, with certain modifications, were taken up by Dr. Hertzka in Austria, and Dr. Engel in Germany.

In order to illustrate this system, the following comparisons may be made :—

Assuming that London is the point of departure of the Zone system northwards, say that Hitchin is in Zone I., Peterborough in Zone IV., and York in Zone X. On the Hungarian scale the fare from London to York would be by first class ordinary train 8s. 4d., and to Peterborough 3s. 4d. But the fare from Peterborough to York would not necessarily be the difference. It would be requisite to consult the tabular statement for "Peterborough," under which one would come in the alphabetical list to "York VI.," that city being six zones from Peterborough. The cost of a fare to Zone VI. being 5s, that would be the fare from Peterborough to York.

Following the same comparison for "Neighbouring Traffic," the fare to Finsbury Park (Subsidiary Zone 1) would be 6d., and to Hornsey (Subsidiary Zone 2) 8d. Similarly, the fares from York to Copmanthorpe and Bolton Percy (or *vice versâ*) would be respectively 6d. and 8d. Comparing the extent to which workmen's fares on the Great Eastern Railway would be affected by the adoption of the zone fares, it appears that in ten cases the fares would be increased, whilst in 26 they would be decreased. Only the more distant stations would be liable to an increase of fares, while those from which the large majority travel would have their fares decreased. The present fare covers a mean distance of 7·62 miles for the single journey, whereas the zone fare offers the workmen concerned the advantage of residing a mean distance of 4·38 miles further in the country. The London County Council recommend the adoption by all metropolitan railways of the zone system—the zone limit to be that of the present service of workmen's trains —namely, twenty miles ; that the number of zones should be three, the radius of the first being five miles, that of the second twelve miles, and that of the third twenty miles ; and that the mean zone tariff should be approximately one-fifth of a penny per mile.

CHAPTER IX.

THE NEW RAILWAY RATES.

"What we ought to aim at in railways is very much the same as that which was done by the Post Office, that is, to have one rate, if possible, to all places. There is no practical difficulty in working all these railways under one management." (G. P. BIDDER.)

THE ferment created by the announcement of the new railway rates (January, 1893) is a remarkable incident of railway history. For the railways it was unwise that the proposed increase came at a time of trade depression, due partly to the wild speculation of recent years in hundreds of companies at home and abroad, and partly to lowered profits through home and foreign competition and other causes. Charges that would in prosperous times be less regarded were now felt to be oppressive.[1] The

[1] Mr. J. S. Jeans, commenting on the new railway rates, mentions that agricultural profits which in 1875 were £67,000,000, in 1891 had fallen to £58,000 000 sterling; that the profits on the iron industry, which in 1874 were £7,218,000, in 1888 had fallen to £1,215,000, or 80 per cent., although with no material decline in the quantity of iron produced; that in coal and iron mining, profits, which in 1874 were £10,500,000, had fallen in 1888 to under £7,250,000, although the quantity of minerals produced had increased nearly 40 per cent. All this while, in the same interval, the net railway profits increased from £27,000,000 to nearly £37,000,000, upon of course an increased capital. "The fact is that the majority of British industries are unlike railway industry in this respect, that while they are exposed to daily competition, which has to be watched with the keenest of eyes by him who wishes to keep his place in the race, the railway system is more or less of a monopoly, in reference to which

traders and agriculturists realised how completely the legislature had placed them in the power of the companies. The statements by the opposing interests were most divergent. The companies affirmed that there was no intention to create a general advance of rates; that though some were enhanced, more were reduced, and on the whole they would be losers to a considerable amount; that if anybody was to blame, it was the traders who had agitated on the question during several years past; that the Joint Committee had decided fairly between rival interests. If, however, any injustice had been inadvertently committed, give the companies time to prepare their new rates, and it would be rectified, and traders would be repaid any overcharge.

If the newly-launched rates were to be revised within a few weeks, one is tempted to ask why they were made. The Board of Trade was pressing for their publication, but as it had already granted two postponements, it would doubtless have granted a further extension of time (as it has since done) rather than rouse to anger every interest in the country. Stirred by them, the Board of Trade, always so lenient to the companies, now threatened prompt remedial legislation. Yet all that had been done was done under the action of the Board of Trade and more especially of the Joint Committee, which sanctioned these new powers of charge which were embodied in the Acts of 1891 and 1892, and all that the companies did was to act on them. The companies had promised not to exercise their full powers, but such powers should never have been granted.[1] Finding that they were being used,

capable management is not so much a matter of life and death." —*Fortnightly Review*, "The New Railway Rates," by J. S. Jeans, February, 1893.

[1] At a meeting of Members of Parliament with the Lancashire and Cheshire Conference on railway rates, Sir J. J. Harwood said :—"They would have no more dealings, for the

the Board said to the companies, "It will be impossible to remove the almost universal dissatisfaction unless there is a general return to the basis of the 1892 rates." But the companies meant nothing of the kind, and in language equally polite said it was a suggestion they "were unable to accept." In the House of Commons and out of it, the companies protested that they had no intention of retaining the maximum rates and had only erred in not saying so sooner. They were wise; they have but to wait, *reculer pour mieux sauter.* For the moment, as Mr. Mundella said, they have "climbed down." Several of them have signified their intention to return as nearly as possible to former rates. Some of them are negotiating with the larger trades, and offer to accept a five per cent. advance upon the tariffs of 1892. But there is a not unreasonable fear that after the agitation has calmed down, the revised, re-revised, and again revised rates, will rise to the legalised maxima. There is not the slightest guarantee to the contrary. Large traders will make their special bargains with the companies, small traders will be disregarded, and all will tire of perpetual protest. Companies which have promised to arrange rates and charges as near those of 1892 as they can have also announced, like Mr. C. H. Parkes (chairman of the Great Eastern) stated, that they "reserve

present at least, with the Board of Trade, which was in harmony with the railway companies. The Board of Trade having allowed the companies in past years to fix illegal charges, having then allowed them during the late prolonged inquiry to take their stand on the basis of these illegalities, having favoured the establishment of terminal charges, and having permitted the companies to violate the law which said that they must publish alterations of rates in their station rate books, had no right to leave the public to settle the present difficulty with the monopolists. It was the duty of the Board to protect the traders from the tyranny of the companies, and it had failed in that duty."

the right of moderately increasing certain rates when trade and agriculture revive." Whether contented or not, the traders and agriculturists, with the Board of Trade thrown in, have no more chance against the organised railway power, now more united than ever, than a mob against a body of disciplined soldiers. The contest begun over ten years ago to *reduce* rates will end in an *increase*, and the nation will bear the burden as best it may, for the nation, and not the traders, will be the ultimate sufferer, unless where prevented by foreign competition.

The traders should not forget what was attempted in 1885, when the companies introduced nine Bills, which made such demands that these were refused a second reading. But these demands were surpassed by the proposals put forward in 1889 under the Act of 1888, the monstrous nature of which was exposed in the Report to the Traders' Conferences by Messrs. Waghorn and Stevens, and which, though rejected, conferred powers far too great, as experience now shows. In a circular issued January 19th, 1893, by the chairman of the Lancashire and Cheshire Conference (Sir J. J. Harwood), he gives a comparison of the rates proposed by the London and North-Western and other companies, between Manchester and Liverpool. They had professed that their intention was to use maximum rates as a reserve, to be available in the case of unforeseen contingencies. The following table illustrates how this profession was fulfilled :—

Comparison of Rates.—Liverpool and Manchester.

	Maximum Rate as proposed.		Maximum Rate as allowed.		Actual Rate now put in operation.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*
Class C	9	10	6	11	7	0
„ 1	13	2	9	4	9	3
„ 2	14	3	11	0	10	11
„ 3	15	6	12	9	12	7
„ 4	18	0	14	10	14	8
„ 5	23	1	17	3	17	2

The efforts of the traders reduced the demands of the companies by about one third.[1] He adds—

"Had it not been for the evidence adduced by this Conference to the contrary, I am convinced that the railway companies would have persuaded Parliament that the maximum rates proposed by them were just and reasonable; and had Parliament acted upon this view, there is no reason to suppose that they would not have put them in operation forthwith, as they have actually done in the instance selected."

Mr. J. W. Gray, of Frizinghall, made an analysis of the railway rates of 1892 and 1893 between Bradford and 313 other places, involving 2,054 class rates, with the following result :—

	Are increased.	Are reduced.	Are unchanged.
Of 176 rates in Class B	130	42	4
Of 313 „ „ „ C	228	76	9
Of 313 „ „ „ 1	169	134	10
Of 313 „ „ „ 2	210	88	15
Of 313 „ „ „ 3	133	173	7
Of 313 „ „ „ 4	111	201	1
Of 313 „ „ „ 5	155	153	5
	1,136	867	51

"It is obvious that no adequate estimate of the general effect of the alterations in rates can be formed by a simple analysis of the changes in the class rates, unless it be also borne in mind that a large proportion of the old special rates which provided for half the traffic (probably more than half) have been increased or cancelled, and thus raised to the new class rates; and also that by the adoption of the maximum classification for working purposes a vast amount of traffic is subjected not merely to an increase upon the old class rate, but an increase upon the old rate applicable to traffic higher in class. The

[1] Sir Alfred Hickman, M.P., acting on behalf of the Traders of South Staffordshire, also obtained material amendments, so as to give them the benefits of the rates prescribed in the London and North-Western Consolidation Act of 1846, the Stour Valley Act, and the Great Western Consolidation Act of 1847. These rates are the lowest maximum rates in any railway Act, and Sir A. Hickman's amendments entitled traders to take either these rates or those in the new schedules, whichever were lowest.

extensive withdrawal of reduced rates for goods carried at the owner's risk, the flagrantly unjust conditions upon which alternative rates are now conceded, the increased minimum loads per truck required in the case of siding traffic, the substitution of full rates for certain traffic previously returned free or at half rate, and other new and vexatious alterations, have also to be taken into account."[1]

Notwithstanding the long inquiries, it is certain that the large majority of traders and agriculturists knew little of the proposals of the railway companies and even less of the efforts made by the traders' associations to resist them. The nine Acts of 1891 were hustled through Parliament with little discussion, at the fag end of the session, when every one was too bored to discuss anything. But when the new powers were put into operation the country took the alarm, and then (all too late) the House of Commons expressed on the measures it had so little discussed the following resolution carried *nem. con.* in the debate on Sir Albert Rollit's motion (March 3rd, 1893) :—

"That, in the opinion of this House, the revised railway rates, charges, and conditions of traffic are most prejudicial to the industries and agricultural and commercial interests of the country, and this House urges upon the Government the necessity of dealing promptly and effectively with the subject."

What the traders thought of the rates was shown by the resolutions unanimously passed at a representative meeting at the Mansion House.[2] It was affirmed by

[1] For other instances see Note D.

[2] Passed at the Delegates' Conference at the Mansion House, London, on Monday, 30th January, 1893, were as follows :—

"That this meeting of traders and agriculturists, from all parts of the United Kingdom, is of opinion that, in view of the persistent efforts made by the railway companies for many years past to secure additional powers of charge, the large and general increase in rates which they have recently made (in spite of their frequent denial of any intention to do so, and immediately after obtaining such powers) has shown con-

the companies that the new legislation, based on an improved classification and codification of the maximum powers of the companies, would so simplify questions of rates that reference to the millions previously existing would be needless, and a few Acts of Parliament would suffice. This may be true as respects the class rates. But, according to Mr. Cawkwell (deputy chairman of the London and North-Western Railway), it appears that no sooner is the normal class rate fixed than it is departed from to meet all the varying circumstances of the traffic, such as the desire of a trader for a lower rate to enable him to carry out a contract, or, it may be, on such conditions as that of sending a *minimum* load, or if packed in a particular manner, or whether more or less risk of damage, or whether at the risk of the railway or the trader's own, or in competition with other means of carriage, or competition at the source whence the article is supplied. These complicated considerations demand the services of numerous clerks in every railway, "daily employed in nothing else but carrying out alterations of rates," to meet the variety of circumstances. Mr. Cawkwell says the intention of the companies is not to increase rates all round, but only to restore the *exceptional* rates, the special bargains made with the individual trader. By substituting exceptional rates for class rates it is expected

clusively that the fixing of actual rates ought not to be left to their irresponsible discretion."

"That, in the opinion of this meeting, the rates and charges made by a railway company ought to be, and were always intended by Parliament to be, reasonable; and that (looking to the necessity for immediate action for the protection of trade and agriculture) the most effectual mode of attaining reasonable rates will be the prompt passing of an Act for so extending the powers conferred upon the Board of Trade by Section 31 of the Railway and Canal Traffic Act, 1888, as to give them jurisdiction in cases of complaint or dispute to determine what an actual rate or charge shall be."

to remove the complaints of the traders. Articles in the exceptional class—articles of unusual bulk, length, or weight, or requiring more than one truck, bullion, etc.—will be carried by "special arrangement only." For such articles a company may charge "such reasonable sum as they may think fit in each case." The railway companies' published classification omits any reference to the regulations relating to the carriage of live stock, perishable merchandise conveyed by passenger train, or the rate of abatement made in the charges for merchandise consigned at owner's risk. About half the rates are class rates determined by the companies' Acts, about half are special rates. "It is," says Sir J. J. Harwood, "the increases made in the special rates which have mainly tended to dislocate the trade of the country, and it is in respect of these that the greatest complaints have been made, but it cannot be too widely and too fully understood that these increases have nothing at all in common with the new revision. They are not necessitated by it in the slightest degree. They are in no manner a consequence of it."

Rates which may be altered afford the trader no check upon an overcharge, or preferences against him, of which he will almost certainly be ignorant. Until the passing of the Act of 1888, copies of the Clearing House classification and the regulations which it contained were only obtainable by favour; and even now at some of the companies' offices they ask for the name and address of the intending purchaser of the book which they are under a statutory obligation to keep upon sale. The special rates, however, are not to be determined by the new Acts, nor are they to be determined by the cost of the service rendered by the railway company. As the secretary of that powerful company (L.&N.W.) puts it: "To lay down a hard-and-fast line would be neither practicable nor desirable in all cases. In some cases, where goods are of high

value, such as £50 or £100 a ton, an addition to the rate of 1d. or 1½d. per cwt., while amounting to a higher percentage, would not really affect the cost of the article or provoke any opposition from the trader, but other traffic could not reasonably bear any increase, even to the moderate extent named." That is to say, that apart from greater risk (which should be paid for), the railway company assumes the right to charge for commodity *a* more than commodity *b*, although the cost of carriage of both may be exactly equal. In the same way it assumes the right to give large traders more favourable terms than small ones. The last report (the 6th) of the Interstate Commerce Commission says of such claims: "The railroad can rightfully do nothing which the State itself might not do if it performed this public service through its own agents. The large shipper is entitled to no advantage over his smaller rival in respect of rates or accommodations, and to allow any exception to this fundamental principle is to subvert the principles upon which free institutions depend." As mere *carrier*—the sole function of the railway company—it has no such right. Once conceded, this right opens the door to an infinite number of rates and possible overcharges. "What the traffic will bear" is what can be squeezed out of the trader without driving him to resistance. It was supposed that maximum rates would protect the traders; so thought the Board of Trade. The traders now ask the State to declare "that a rate must not only be within a railway company's maximum powers, but also *reasonable*, and that an unreasonable charge shall be illegal." *Every* rate fixed by law, the law says, *is* reasonable.[1] When,

[1] A letter in the *Times*, signed "Inner Temple, Junior," quotes the case of "Great Western Railway *v.* M'Carthy" in the House of Lords (12 App. Ca.). In his judgment in that case Lord Watson says:—"*Primâ facie*, I am prepared to hold that a rate sanctioned by the Legislature must be taken to be a

therefore, the traders appeal to the Board of Trade or any authority it may create, their appeal will be like that of the wagoner to Jupiter, and with like result. They want an authority to *fix* rates from which there "could be no departure without the sanction of Parliament," or if not to fix rates, to find an umpire to whom to resort in case of dispute. This, at least, is intelligible; but who can determine, between the opposing interests, what is "reasonable" and "just"? And is it practicable? Clause 31 of the Railway and Canal Traffic Act gives power to the Board of Trade to mediate between the railway company and the trader in case of dispute, but it has no power to enforce its decisions, and will prove, like the railway commissions in the United States, of some, but not much, use. The trader will find it better worth his while to submit in silence. If one trader succeeded in his contention, it would not help others under conditions more or less differing from his own. The special rates which form the majority are supposed to be the more important as enabling the companies and the traders to adjust charges in accordance with circumstances. As to maximum rates, "If the maximum rates are fixed so high that in its own interest a company will, except in rare cases, take less, then the maximum rates are useless; if, on the other hand, they are made so low as merely to

reasonable rate. . . . I do not think a court of law would be justified in entering upon an inquiry for the purpose of ascertaining whether the Legislature had authorised an unreasonable rate, and without such an inquiry it would be manifestly unjust to hold that it was unreasonable." The writer adds, "Of course he may obtain, if he can, the platonic sympathy of the Board of Trade under the conciliation clause of the Act of 1888; or he may legally impeach the reasonableness of a rate which, as compared with other analogous rates, subjects him to 'an undue or unreasonable prejudice or disadvantage.' But that any individual rate is reasonable *per se* cannot be questioned before a legal tribunal so long as it does not exceed the statutory *maximum*."

cover the ordinary cost, they will be too low in exceptional circumstances.[1] As to reasonable rates—what *is* reasonable? As the *Times* said, "There are no arguments within the range of human ingenuity that will convince a Sussex hop-grower of the equity of an arrangement by which foreign hops are brought from the other side of the Channel for less than he has to pay to get them across Surrey." "For nothing can shake the belief of the home producer, and in our view nothing ought to shake it, in the argument that if these low rates pay the companies, he is shamefully overcharged, while, if they do not pay, he is still overcharged to cover the loss and bring up the average."

So long as it is the business of directors and managers to get the highest possible return for their shareholders, numerous rates are an actual advantage to the companies because check becomes impossible. Ownership by the State on behalf of the public, in other words, if the railways were all one, and that one a trust for the public and not for private profit, a few simple uniform charges would suffice. The proposal to fix the reward of *private* capital by *public* authority will not work.

"The most serious objection that would be liable to be brought against the proposed new powers of the State would, however, be the fact that it was practically leaving it to that authority to fix the price at which certain commodities—the plant and services of the railways—shall be sold to the general public, without asking the State to assume the risks and responsibilities of ownership. The natural outcome of the proposal would, therefore, in all probability be the acquisition of the railways by the State. But this is a proposal from which all reasonable economists and business men have been disposed to shrink for many years past. . . . The advocates of the interference of the State in all the details of fixing of railway rates point to the Continent as an example of how far such control tends to a low range of charges. There is no doubt that in most continental countries the State does interfere in the

[1] "Railway Rates and the Commonweal," by Dr. Hunter, M.P. *The New Review*, March, 1893.

fixing of railway charges, but then, in those countries, the State is virtually the owner of the railway system to a very large extent."[1]

If railway charges were based upon *cost of service* plus profit, the word *reasonable charge* would have a meaning. But all the great lights on railway traffic persist in affirming that such a standard is impossible. In any test case, "when it comes to fixing by judicial authority an exact rate for a definite article or series of articles from station A to station B, the railway company has a right to demand that there shall be taken into consideration all the circumstances of the particular case. Let us enumerate a few of the factors that go to settle the reasonableness of the rate—cost of construction of line, cost of maintenance (tunnels and bridges or plain level road), cost of labour, cost of coal, volume and constancy of traffic, whether in one direction only or fairly balanced to and fro, difficulty of handling, liability to damage, method of packing, etc. Evidently no two series of consignments will ever correspond in all these particulars; evidently, therefore, no one rate can be a binding precedent for another."[2]

One wonders how, without inspiration, any nation, colony or company ever did arrive at a railway rate at all! The rates were certainly not fixed from a consideration of any of the above-named conditions.

[1] *Economist*, February 4th, 1893.

[2] The *Times*, April 1st, 1893, "Reasonable Railway Rates." As Sir James Whitehead said, as to the *basis* of the proposed new rates, "the railway companies, in spite of frequent requests, persistently refrained from furnishing any evidence to enlighten either Parliament or the Board of Trade upon this point. In the absence of such information the Board of Trade and Parliament could only act upon the evidence before them, which consisted of statements with regard to (1) the old and more or less obsolete *maximum* powers, and (2) some rates actually charged. To what extent the tribunals were influenced by the different portions of the evidence, or what basis they adopted, has never been made known."

No Professor Taussig, or Colson, or Hadley, or Fink, to whom we are referred for light, was consulted on the theory of "joint cost." The process was very prosaic, did not profess to be scientific, and has landed us where we are. And if cost of service is an impossible measure, we are driven to that of "what the traffic will bear," and the only judges of this are the railway companies themselves. That is a reasonable exchange, which both parties to a bargain, both cognisant of all the conditions, both equally free to accept or reject, agree upon. But if one of the two has no choice, except what is called "Hobson's choice," that or nothing, the word reasonable is a misnomer, a deception, and the sooner this is acknowledged the better. Except where there are other means of conveyance, not controlled by the companies, they are masters of the situation and they know it. Even if there were a satisfactory authority to which to appeal (a large supposition) we are no further. As Mr. Acworth says, "For every shilling cut by an expeditious tribunal off a rate, it is easy for the railway companies, if they are agreed to act in harmony with each other, to withdraw two shillingsworth of facilities; and the traders may make up their minds that this is what must inevitably happen if the railway companies are confronted with lower rates simultaneously with a rapid rise of working expenses. Assume that your tribunal can fix a reasonable rate, what is the use of it unless it can schedule to its judgment a minute specification of the quality of service to be given in return for that rate? . . . The railways can bring down troops of expert witnesses. How can the tribunal refuse to hear them, when every student of railway economics knows that the reasonableness of each particular rate depends not merely on its own individual circumstances, but on a comparison with all the other rates and a consideration of the company's entire business? But for a farmer or a shop-

keeper, with the assistance, possibly, of the local attorney, to undertake to fight trained railway experts with a lifetime's experience, and with every fact and figure at their fingers' ends, is only to court defeat."

And what is the proposed remedy? It is ludicrously inadequate, but the Traders' Conferences, and the Chambers of Commerce, and the Houses of Parliament, and the Board of Trade, and all the committees and commissions, have found no better one. "Appoint Government inspectors of traffic, with power to examine, to remonstrate, to report; and publish their reports as soon as they are received. The bulk of the traders' grievances are not really against the railway companies, but against the laws of nature. Trust to the education which comes from free public discussion to remove these. The grievances which really are remediable will be remedied fast enough when they are brought to light. If not, then Parliament can act on the definite facts of individual cases."[1] When this has failed, as fail it will, the public may come round to the conviction which induced Prussia, suffering even worse evils than ourselves, to take possession of the railways. Herr Witte, of Rostock, expressed the common-sense of the matter thus: "That the character of the railways as trade undertakings based on monopoly is contrary to the idea of their construction for the public good," that it was proved that competition of railways does not protect the public against monopolist oppressions, and "generally and easily resolves itself into a coalition of those interested in the monopoly," and that "a complete and comprehensive reform can only be hoped for when all the railways of Germany are managed as one system, which, like the post, should offer that guarantee which no written law will ever succeed in infusing into private railways. It is only

[1] The *Times*, April 1st, 1893. "Reasonable Railway Rates."

the State which can offer such a guarantee, and for this reason the transfer of the whole railway system to the State is necessary."[1]

It is not that the railway companies are overpaid. No one thinks that the average return of 4 per cent. to railway capital is too much. The contention is that the railway system as at present managed is a wasteful one, which could be greatly improved by a more complete organisation under the State. "The profitable working of railways," says Mr. R. W. Giles, "is mainly a question of full loads, and depends in the first degree upon the adjustment of train mileage to the traffic to be moved." He pointed out that the diminished earnings of railways were due, not solely to increased wages and shorter hours, as to increased train mileage not really needed.[2] Why, then,

[1] Meeting of Handelstag of Prussia (May 14th, 1872). Though Herr Witte's resolution was not adopted at the time, it ultimately triumphed in practice, and no one proposes to adopt the English system.

[2] Letter by R. W. Giles in the *Times*, January 2nd, 1893. He further says, "Millions, now wasted annually for want of a better understanding amongst the companies, would be saved by such a reform of the train service as would allow each passenger train to earn 5s. per mile instead of the present average. Under Government control the railways of Ceylon, with less than half our traffics, earn 12s. 4d. per train mile, the railways of India earn 7s. 8d. per train mile, and the railways of Australia earn from 4s. 10d. to 7s. 1d. per train mile. The following statement of mileage earnings on the Continent is given on the authority of the late Mr. Grierson's standard work, 'Railway Rates, English and Foreign' (*v.* p. 129).

	Gross Receipts.		Train Miles per Mile of Railway.
	Per Mile of Railway.	Per Train Mile.	
	£	s. d.	
England and Wales ..	4,315	5 $0\frac{1}{2}$	17,105
France	2,145	5 $10\frac{3}{4}$	7,269
Germany..	2,061	6 $5\frac{1}{2}$	6,390
Belgium (State) ..	2,440	4 $6\frac{1}{2}$	10,712
Holland (State) ..	1,306	3 11	6,683"

are we told that a reduction of 15 per cent. all round on present rates would wipe out the property of every ordinary shareholder in the United Kingdom? How little such a catastrophe was feared is shown by the fact that in spite of the losses the companies asserted—the Midland, with an admitted rise of 2¾d. per ton, was to lose £60,000 in coals alone—in a time of bad trade, home railway stocks rose on the promulgation of the new rates. Rates of traffic will be a perpetual cause of angry dispute between railway investors and the agriculturist and trader. But if the railway system were organised under the State, the possible economies would be found to permit reductions now impossible to estimate, but which outside experience shows to be very great. "Profit to the State would come from increased traffic due to lower rates and fares. Rolling stock would be more utilised, and fewer establishments for rolling stock—instead of waggons coming back empty over the system, the carriages and waggons might be used promiscuously over the whole of the kingdom, and central management would dispense with boards of directors. Branch railways would be more cheaply constructed on the security of the State than by private capitalists, and it would be able to make conditions with localities for assistance, as is done with improvements in ports and harbours."[1]

Whether a system of uniform rates and fares is better than one which fixes charges according to cost of service is a fair question for discussion; and the

Not only does the volume of Continental traffic average less than half that of the English lines, but the passenger fare average 20 per cent. lower, and in Belgium and Holland the goods rates are stated to be exceptionally low; yet under these disadvantages the railways of France and Germany are able to show larger earnings per train mile than those of English lines, and Belgium is not far behind us.

[1] Select Committee on Railway Companies' Amalgamation, 1872. Captain H. W. Tyler, questions 7101 to 7147.

possession of railways by the State does not necessarily involve the one or the other, and might include both. One thing is certain, viz., that the new maximum rates for goods traffic, though simplified as compared with the chaos of the previous system—if system it could be called where system there was none—are still highly complicated. They present such a variety of charges for this or that distance, and this or that article, that the trader wanting to know his rates will very often give the riddle up and let the companies charge as they like.

Another thing equally certain is, that whatever the advantages of uniform charges, they will not be practicable while the railroads are the property of a number of private companies. Only under a system that amalgamated them under one authority could a juster mode of charge for goods and passengers at reduced rates be introduced, and then the whole system of rates and fares could be placed upon a simple and intelligible basis, and the present complicated methods abolished. The State railway would not ask "what the traffic would bear," what the cost of the line or of certain parts of the line, what the interests of this or that locality—questions now settled in private by a few railway officials, the public having no voice in the matter. If the Post Office principle of absolute uniform charge for any distance were not at once adopted, a considerable approximation to it would be practicable, and be a protection against discriminating rates. In 1865 Sir Edwin Chadwick maintained that sound economical principles exclude charges beyond the bare cost either as profits or as revenue on intercommunication, that profit is not a measure of utility, that the improved value in land or houses, and in other ways would pay for a road or railway the tolls or fares on which might not pay working expenses. There is a limit of loss, through reduction of fares and rates,

which a State railway could face experimentally, and, if advantageous, continue permanently, which private railways could not risk. It would be simply a question of whether the social benefit of reduced charges compensated the loss. The charge for fares and goods might be reduced so as to incur a loss to the State, if justified by a probability of the equilibrium being speedily restored.[1]

It was said when Penny Postage was proposed, "People only write the letters they are obliged to write, and therefore you will only lose revenue by reducing the rates, and Col. Maberly (once the Post Office chief) declared that the revenue could not be replaced in some forty years."[2] So it was formerly assumed that only those would travel who were obliged to do so. Yet every cheap excursion refuted this notion, and almost every increase of comfort and facility of travel proves remunerative. Since the Penny Postage was established, the principle of uniform charge has been applied, to a considerable extent, to telegrams and to the parcel post, with great success.

In an admirable work published twenty-four years since, on "The appropriation of the Railways by the State," Mr. A. J. Williams, now M.P. for South

[1] An illustration exists at Huddersfield, the only Corporation that works its own tramway. The fares do not pay the expenses, and the deficiency is made up by a three-halfpenny rate, so that those who travel do so at the expense of the ratepayers. The loss is partly due to the fact that a sinking fund of £750 is annually put away. The tramway carriages also do not run on Sunday. It appears, however, that the ratepayers do not object to these arrangements.

[2] When Parliament compelled the London gas companies to reduce their charge of 12s. per thousand cubic feet of gas (costing them 2s. 6d.) to 4s. 6d., they were going to be ruined. They have had further reductions and are not yet ruined; and when they and the water companies come under municipal government, as they are sure to do, the reductions will be still greater.

Glamorganshire, assuming what is rapidly approaching—the substitution of improved third for second class—anticipated also the principle since known as the Austro-Hungarian Zone system. He suggested greatly reduced fares for the shorter distances below fifty miles, and for all beyond that distance one uniform rate for each class. A later writer, Mr. G. W. Jones, also advocated a system of charges by stages (instead of so much per mile) and at a considerable reduction of fares.[1] Mr. Raphael Brandon twenty-five years ago proposed to charge a uniform rate for any distance. His views were adopted by the National Railway Association (a body it would be well to revive).[2]

The principle of uniform rates would be as applicable to ordinary goods traffic as to passengers. It is in favour of such a proposal that one-half of the goods traffic is under fifty miles, and 80 per cent. of it under two hundred miles. It is shorter here than in the other countries of Europe, and the new rates fall more oppressively on short traffic, which is by far the more important both for passengers and goods. Though it is an advantage that terminals and other

[1] "On the Causes and Consequences of High Charges for Passengers by Railway, and the Advantages to be Expected from the Adoption of Low Fares," by G. W. Jones, Society of Arts' Journal, March 4th, 1870.

[2] The objects of the Association were cheapness and uniformity of fares; issue of general tickets available on all lines at any date; security of railway property by placing it under State guarantee; rearrangement of traffic with a view to increased convenience and safety; consolidation of railway management.

Mr. Brandon suggested that there should be fares *for any* distance of 1s. for first class, 6d. for second class, and 3d. for third class, by ordinary trains; or for distances under ten miles, first class 4d., second class 2d., and third class 1d. Mr. Brandon's proposals were published in a pamphlet in 1871, now scarce, but were discussed at the Society of Arts, April 3rd, 1868, and will be found in the Society's Journal.

services have become fixed charges, and are no longer on the "charge as you please" principle, there was no reason for making them excessive, so as to form nearly three-fourths of the total charge. The result is, as Mr. Jeans says, that "the station and service terminals taken together will be considerably higher than the total charges for conveyance."[1] As in the case of a letter the principal cost is not in the transit, but in that of receiving, sorting, and delivery, so with the railway. Once goods or passengers are in the train, distance becomes subordinate. While for cheapened passenger fares there is a field for almost illimitable growth, there is not an equal expansibility for goods. Liverpool, for example, will send no more cotton to Manchester than Manchester mills require, whether that cotton is conveyed by one line or by four, with the Ship Canal added. The charge for freight, however, is not a matter of indifference. In Staffordshire the railway freight on the materials used to make a ton of pig iron comes to 25 to 30 per cent. of its cost, and if unduly high might drive a trade away.

The proposals of Mr. A. J. Williams with respect to goods traffic in 1869 agree with those of Mr. Charles Waring eighteen years later. Mr. Waring devoted a considerable portion of his admirable essay to this subject. He proposed to establish "the railways on the basis of the Post Office service, gradually eliminating distance as an element of charge in the carriage of goods under the ownership and

[1] Mr. Jeans gives an illustration: "a ton of corkwood, for example, would be carried ten miles for 2s. 7d., but the station terminals would add 3s., and the specified service terminals would add 2s. 4d. to this amount, making the total charge 7s. 11d., besides a possible liability to pay considerably more even than this in the form of 'special' charges which have been defined in the Acts, but which, nevertheless, the railway companies may nevertheless demand subject to appeal."—*Fortnightly Review*, "The New Railway Rates," by J. S. Jeans, February, 1893.

administration of the State." There would be a single rate for any distance for different classes of goods, commencing first with coals and minerals, afterwards merchandise, and then extended to passengers. At first there would be two or three rates, one for short, others for long distances, but "keeping the one rate for all distances in view as the ultimate object." "At present no attempt is made to regulate the charge by the cost of service. The State would distribute the cost evenly over the whole system, as it does in the Post Office department." In 1872, when advocating State purchase, Sir H. W. Tyler said, "A great deal of difficulty would be got over in consequence of the reduction of the rates and fares which it would be possible to make, and there would be so little difference between different points of the country that it would not be worth fighting about, comparatively"; and that to reduce rates and fares and increase facilities would enable "this country to compete with every other country in manufactures and commerce in a way which has never been done before."

To carry at a loss to the State would be to tax A for the benefit of B, and, unless as a social experiment, it would be objectionable. But if, to use Mr. Waring's expression, it were possible "out of Utopia" to entirely eliminate distance as an element of charge, it would have to be at first tentative, commencing with a low fare for moderate distances; and experience would test whether the increase of passengers would compensate the cost. In passenger traffic for long distances expense is only one element, the possession of leisure is another.

In goods traffic, lessened cost of raw material would cheapen production, and thus increase trade; and so far as it might be practicable to charge a low uniform rate for any distance, it would have many advantages.[1] Mr. A. J. Williams estimates that it

[1] See note J, page 384.

would be lower than the minimum rate charged by the companies. "A single rate would almost equalise the price of coal throughout the country, and would bring the workmen within a few miles of every labour market within the kingdom. The sea-board would be hard by every manufactory, and the natural advantages of every district would have an equal opportunity of development."[1]

But Mr. Waring is regardless of profit, believing that "by giving the nation the use of the instrument at cost price or something less, the State would sow a seed which would produce a national harvest of wealth compared with which the 1 or 2 per cent. extra interest on its capital to be earned by an additional tax on industry for the use of the rail would be a bagatelle."

Short-distance rates would not be raised, and long-distance rates would be lowered to the average minimum, until the development of trade which Mr. Waring thinks the reduced rates would create, would enable the distinction to be abolished. He assumes a loss at first, which even if it were £12,000,000 (an extravagant supposition) it would, he thinks, be recouped by the increased traffic and the opening-out of new centres of industry. He cites the parcel traffic of the railways, which, notwithstanding the reductions in rate (owing to the Parcel Post Office system) increased in 1885 over 1881 in volume 25 to 30 per cent., and in earnings 8 per cent. The experience since that date is still more striking, for the parcels have more than doubled, and the income from that source both to the railways and the Post Office increased in similar proportions.

That the Parcels Delivery system has reached anything like its full development there is not the slightest reason to suppose. The Rev. Harry Jones

[1] "Appropriation of the Railways," p. 94.

has recently shown the enormous difference between the price obtained by the farmer for his produce and that paid by the consumer. Most praiseworthy are the efforts of the Great Eastern Railway to bring producer and consumer more directly together, without the deduction of the "big bite" taken by the middleman. The Fruiterers' Company recently stated that pears which were sold for a shilling a hundred, were retailed on the same day at eighteenpence per dozen, and that large quantities of fruit are suffered to rot instead of being brought to market.[1] It is the same with fish, tons of which are destroyed by other monopolists to keep up the price. A box of herrings can be brought from Norway for 2s., but the cost from Scotland is 7s. 6d. The Co-operative movement has done much to reduce excessive prices in some articles of consumption, but it has not largely affected the farmer. The railroads could do much for him, but two things are needed: first, such a reduction in railway rates as would enable him to sell as cheaply as the foreign producer; and next, cheap railways in the districts where the ordinary railway does not and is not likely to penetrate. There are districts that are practically as remote from the railways as if these did not exist. More than a fifth of Ireland is uncultivated. In Scotland it is the same,

[1] A correspondent of the *Echo* gives some interesting facts in reference to fruit cultivation in the United States:—"Every family and every guest at hotels in the United States has a dish of fresh fruit on the daily breakfast-table. The supply is scarcely equal to the demand, fresh fruit being regarded universally as a necessity and not as a luxury. This accounts for the fact that the Eastern States of the Union paid to the Western States, in 1891, the enormous amount of 175,000,000 dollars, or about 35,000,000 of pounds sterling, for fruit alone. One estate of 3,000 acres realised for the year 1892 the net amount of $212,440, or, say, £42,488 sterling, for the owner, equal to a net profit of £16 per acre, and increasing by one-fifth annually."

and in the West Highlands the Government proposes to subsidise railways that would not pay without it. The Duke of Sutherland is giving the land so far as the railway passes through his property.[1] In England there are hundreds of thousands of acres towards the cultivation of which the railway lends no aid.[2] Long ago Sir Edwin Chadwick recommended cheap horse railways as a mode of developing agriculture. A horse can draw on the level $3\frac{1}{3}$ times as much as on the ordinary road. The profitable districts, offering a fair temptation to capital, are mostly provided with lines. But between these and the old highways there is needed an intermediate system; not the heavy engine and substantial rails of our main trunk lines, but light tramways (for steam or horse power) on our country roads to act as "feeders," such as the recent Irish light railways.

On the Continent such feeder lines have long been recognised as the essential complement of the greater lines. They are not likely to pay dividends and the expensive accessories of private companies, but would reward local authorities for the outlay upon them in the development of sparsely-populated districts. The desertion of the country for the town is becoming a striking feature of modern social life. It is going on in all countries, old and new—England, France, Germany, Canada, the United States, and Australia. No plan of checking this very undesirable tendency, which has become in some cases a public calamity, has been devised. But if any single agency could weaken it, it would be the promotion of facilities of transit, which by equalising the conditions of urban

[1] The Highland Railway is to maintain and work it in perpetuity.

[2] Mr. R. Price Williams, C.E., has prepared a table showing the proportions of railway mileage to the area of square miles in England and Wales. The average is 2·42 miles of railway to each 10 square miles of area. (See Note F.)

and rural life would lessen the temptations to aggregation. Here this social problem has to be solved—thousands of uncultivated acres on the one hand; on the other, thousands of unemployed men flocking to overgrown towns. Thirty-eight millions expended in the importation of farm produce (fruit, poultry, butter, eggs, vegetables, and flowers) equally capable of being produced here. Nor is agriculture alone concerned. Mr. Henniker Heaton says that this produce and other commodities might have been carried here at a uniform rate of a penny per pound, but this has been rendered impossible by the extraordinarily lavish and improvident—almost stupid—contracts entered into with the railway companies. The parcel traffic has increased 86 per cent. within the last six years, and a large proportion, owing to railway exaction, goes by coach along the old mail roads.

There would also be the further advantage that if capital could obtain labour and fuel as cheaply in the village as in the town, many industrial occupations would find their way there; but facility of communication constitutes the one essential condition—a condition, unfortunately, that our ordinary railway companies are not likely to provide. The main lines of railway communication in this country likely to tempt the voluntary investment of capital are already made, but there are still large districts not adequately supplied with cheap and quick modes of communication.[1]

[1] In a memorial from the Association of Chambers of Commerce to the Board of Trade, December, 1892, it said :—

"It is estimated that in the villages and rural districts of England and Wales there are not less than 5,000,000 people who at present are practically cut off from commercial relations through the want of railway communication. The existing statutory regulations as to the construction of railways necessitates lines of so costly a character that they cannot be made remunerative in thinly-populated districts; but experience has shown that it is possible to construct railways of a much

NOTE D.

In an article on the new railway rates the *Daily News* gave specimens of what are called the class rates, which *may* be charged under the new Acts, and are applicable to every one of the hundreds of articles enumerated in the class in question :—

	Per Ton.				
	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.
London to Liverpool	Old Rate : 27s. 6d.	32s. 6d.	37s. 6d.	50s. od.	70s. od.
	New Rate : 31s. 1d.	39s. 10d.	46s. 6d.	55s. 11d.	66s. 5d.
Birmingham to Wolverhampton	Old Rate : 8s. 4d.	9s. 2d.	11s. 8d.	15s. od.	22s. 6d.
	New Rate : 8s. 8d.	10s. 4d.	12s. 1d.	14s. 4d.	17s. 6d.
Rugby	Old Rate : 11s. 3d.	14s. 2d.	15s. 10d.	19s. 2d.	22s. 6d.
	New Rate : 11s. 11d.	14s. 4d.	16s. 8d.	19s. 9d.	23s. 11d.
London	Old Rate : 22s. 6d.	28s. 4d.	34s. 2d.	40s. od.	50s. od.
	New Rate : 24s. 3d.	29s. 7d.	34s. 2d.	40s. 10d.	49s. 4d.

There are some deductions that occur in classes which contribute the smallest quantity of traffic. Of the Great Western Railway class rate, the following are examples :—

	Per Ton.				
	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.
Bourne End to London ...	Old Rate : 11s. 8d.	14s. 2d.	16s. 8d.	21s. 8d.	27s. 6d.
	New Rate : 14s. 1d.	16s. 6d.	19s. 4d.	22s. 8d.	26s. 9d.
Bourne End to Birmingham ...	Old Rate : 20s. 10d.	25s. 10d.	32s. 6d.	37s. 6d.	42s. 6d.
	New Rate : 21s. od.	25s. 10d.	29s. 8d.	35s. 8d.	43s. 11d.

less expensive character at an estimated cost of £4,000 per mile. Villages could be brought into communication with the general railway system, to the benefit of their inhabitants and of the community at large ; while the capital expended on the construction of such railways might be expected to yield a reasonable return."

There is a reduction for class 3. The following wear a different aspect :—

	Per Ton.				
	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.
Selling to London	Old Rate : 7s. 11d.	9s. 7d.	12s. 11d.	18s. 9d.	25s. 5d.
	New Rate : 19s. 0d.	22s. 7d.	26s. 6d.	31s. 8d.	37s. 0d.

Part of this difference is accounted for by the fact that collection and delivery were not covered by the old rates.

The important article of grain has been badly treated, to say nothing of the fact that the old custom of charging only on the net weight of the grain appears to have been abandoned :

	Old Rate.	New Rate.
Smethwick to Canterbury ...	16s. 8d. 4-ton lots ...	25s. 2d. 2-ton lots . . per ton
Diss	16s. 8d. 4 ,, ...	22s. 3d. 2 ,, ... ,,
Market Drayton	6s. 10d. 4 ,, ...	9s. 2d. 4 ,, ... ,,
Bristol to Cardiff	4s. 2d. 2 ,, ...	8s. 9d. 2 ,, ... ,,
Plymouth ...	10s. 9d. 2 ,, ...	13s. 4d. 2 ,, ... ,,
Smethwick to Ipswich	15s. 10d. 4 ,, ...	17s. 0d. 4 ,, ... ,,
Aberdare ...	10s. 10d. 4 ,, ...	15s. 2d. 2 ,, ... ,,

To some of these places no 4-ton rates appear to be quoted.

Complaints have been received from Scotland and Ireland. As an illustration of the increases on small parcels, the figures in the next paragraph are remarkable :—

CARNOUSTIE TO ABERDEEN.			EDINBURGH.	
Parcel of	Old Rate.	New Rate.	Old Rate.	New Rate.
1 cwt.	1s. 6d.	1s. 8d.	1 cwt. 2s.	1s. 9d.
1½ ,,	1s. 6d.	2s. 3d.	1½ ,, 2s.	2s. 3d.
2 ,,	1s. 10d.	2s. 9d.	2 ,, 2s.	2s. 10d.
2½ ,,	2s. 4d.	3s. 3d.	2½ ,, 2s.	3s. 4d.
3 ,,	2s. 9d.	3s. 10d.	3 ,, 2s. 5d.	3s. 11d.

It will be observed that these rates are per cwt., and not, as in the case of previous instances, per ton.

Under these new rates it would be hard to say whether agriculture or trade would suffer most. With reference to agriculture, the following is an extract from a letter to the members of the Agricultural and Horticultural Association, Limited, by its managing director, Mr. E. O. Greening :—

We have over 3,000 farming members, to whom we send by rails a great variety of goods, including oilcakes, artificial manures, seeds, agricultural implements, and coals. These 3,000 customers are scattered all over the kingdom, and the extent of the test may be judged by the fact that we paid £7,000 last year in carriage, in addition to payments made by our customers. Of 200 rates received from the South Eastern Railway Company,

in respect of over 70 stations on their line to which we send goods, a comparison with previous rates shows the following results :—

In 38 cases there have been reductions.

In 211 cases there has been an increase.

The 38 reductions amount to 10s. 4d., all told.

The 211 increases total up to £22 19s. 2d.

It is only necessary to run one's eye down the list to see that a deliberate plan has been followed of putting up the rates wherever the reviser of them felt there was an opportunity before him. Where reductions have been made the nature and amount of them show that they have simply been grudging concessions made to necessity.

The advances on the heaviest traffic—2-ton and 4-ton lots—amount to $5\frac{1}{2}$ per cent. after deducting the decreases.

The advances on the rates for smaller lots of goods amount to nearly 40 per cent., and there are no decreases under this head.

Now everybody knows that the senders and receivers of small lots of goods are the least able to protect themselves, or to escape from railway overcharges by using other communications. This section of the public as a rule must pay whatever is demanded. The separate amounts in question are too small to make it worth while to incur the cost of agitating for reductions. Besides, the parties who send and receive small lots are more isolated than the merchants who send truck-loads and 2-ton lots of goods, and are therefore not so likely to combine for organised protest and defence. These facts seem to show that the consideration of a railway company for its customers is proportioned to the defensive strength of the customers.

The market gardeners and fruit dealers at a deputation to the Board of Trade complained not only of the increased charges, but alleged that foreign fruit was carried at preferential rates to English markets, one of the instances given being that while a ton of English apples cost 24s. 1d. to bring from Folkestone to London, the same weight of French apples would be carried from France for 15s. 8d.

The charges for milk raised the cost of carriage from 50 to 100 per cent., or £8 for every cow whose produce was sent by rail. One of the directors of the London and North Western Railway (the Hon. H. Hibbert) said, at a meeting of the Herts County Council, that milk came under the special rates which the company had not had time to consider, to which Mr. Part rejoined that they had found time to raise them all.

The Seed Trade Association passed and transmitted to the Railway Companies' Association the following resolutions :—

(1) That the new rates and regulations will, if continued, seriously impede the business transactions of the firms composing our Association by driving the outward trade from London and their inward or farmers' produce trade to other countries or districts where communication by water is available. (2) Supplying as we do indirectly the agriculturists of the United Kingdom with seeds for their farms, a class which is already most seriously overburdened, we submit that the rates, instead of being advanced, should most certainly be reduced to the lowest possible tariff.

Mr. H. F. Moore, who organised the *Mark Lane Express* deputation to the Board of Trade, estimated the increased tax

on land at 5s. per acre, or £8,000,000 a year, assuming that farm produce went per rail. Mr. Baylis (Berks and Hants Chamber of Agriculture) said that without the sale of straw thousands of acres would go out of cultivation, that a difference of only 1s. per ton represented a depreciation of £10,000 in Berks and Oxon, but the advance from Newbury to London was from 13s. 4d. to 15s., and from Hungerford from 13s. 4d. to 16s. Pressed hay from 6s. 8d. to 15s. 4d., by which the whole trade had been disorganised. These were not class rates, but special rates, "the last word" of the Great Western Railway Company, the chairman of which (Mr. F. G. Saunders), at its recent general meeting, stated that the company had been employing between 600 and 700 clerks hard at work to revise their 25,000,000 rates, that the new revision would diminish their returns by £90,000 in the year, and advised the traders to "consult the company's managers, instead of Chambers of Commerce or Mansion House Committees, and so be led away by their foolish talk and unfounded arguments." One speaker at the same deputation complained that in artificial manures increases had been made of 1s. to 4s. per ton (special rates), and that the increase, being chiefly on 2-ton lots, hit the small farmer; another that a company had made an increase on the same article of 1s. 2d., 1s. 3d., and 1s. 5d. *above* the maxima; another that on 2 tons of beet 10s. was charged instead of 3s. 3d., and onions 12s. 6d. against 6s. 1d., equal to £3 to £4 per ton. Yet the President of the Board of Trade (Mr. Mundella) replied that vegetable rates were in the same class as always, and the *maximum* charge reduced 50 per cent. The millers, corn merchants, cattle dealers, and graziers were not less loud in their complaints.

Nor did manufacturers and traders fare better than farmers. At the Mansion House meeting in January, 1893, similar statements of the same kind were made from all quarters. Passing over the almost incredible one of the Marquis of Huntly, that the companies were now charging twice as much for the carriage of a calf or a pig as for a first-class passenger, we may quote Mr. W. S. Caine, M.P. Contrary to the desire of the Board of Trade, which wished to put manufactured iron and steel in Class B, it was mostly raised to Class C, enabling the companies to charge about 40 per cent. for conveyance and 1s. to 2s. 8d. for station and service terminals. That carriage in Belgium and Germany would not be one half so much as here, that we imported from Germany three times as much iron and steel as we sent there, which we could produce as cheaply here with fair play. Another large iron manufacturer gives a specimen of the new and the old rates:—

Old Rate.	New Rate.	Increase	Old Rate.	New Rate.	Increase
s. d.	s. d.	per cent.	s. d.	s. d.	per cent.
4 7	7 11	72	3 7	6 1	69
4 6	5 0	11	3 0	5 4	77
3 10	6 6	69	3 0	6 2	105

In this case not a single reduction was made.

At a meeting of the Port Committee of the Liverpool Chamber of Commerce, a list of 64 actual rates recently charged by the London and North Western Railway Company for large traffic had been compared with the rates now on the books of the company, and it was found that while 27 rates remained unchanged, 27 rates were raised and only 10 rates reduced. The chief increases were in the rates for wool, tallow, gums, dyewoods, iron hoops, metal bedsteads, rice, cheese, bacon, butter, lard, and loaf sugar. The reductions, so far as known, were in rates for general produce, oils, petroleum, glass, hardware, and scrap iron. Resolutions were passed: —"That this committee strongly deprecates the action of the railway companies in approximating their new actual rates and charges for the carriage of goods to the *maximum* powers conferred upon them by Act of Parliament, in violation of the understanding that the said powers were only to be applied in case of future and special emergency; and that the increase of rates and charges resulting therefrom, and the imposition of the risk of carriage in certain cases upon the owners of goods unless guarantee rates are paid, will most prejudicially affect the trade of the country."

The Glasgow Chamber of Commerce made the same complaint. On the Glasgow and South Western Railway, out of 66 towns which were covered by the line, in the classes of goods known as dry there were 6 cases of reduction, the remaining 60 being increases, varying from $9\frac{1}{2}$ to 30 per cent., the average increase, less decrease, being 13 per cent. On the North British, in the case of 52 towns, there were 17 cases of reduction for the same class of goods, the increase, less decrease, being 6 per cent. On the Caledonian, in 31 important places there was an average increase of 13 per cent., less decrease. The increases in some cases were as high as 56 and 60 per cent.

At one of the numerous deputations to the Board of Trade Sir James Whitehead, M.P., quoted some of the advances :—

Leather conveyed by the Midland from Bristol to London under the old rates stood at 32s. 6d. per ton, while under the new rates it stood at 44s. 9d. Paper carried from Darwen to London formerly was charged 28s. 4d. per ton, and now it was charged 51s. 8d. per ton. From the same place to Leicester the old rate was 22s. 6d., compared with a new rate of 34s. 7d. Heavy drapery from Lancashire to the West of England had been 48s. 8d., and was now 52s. 8d. From London to Norwich iron tanks formerly cost for carriage 20s. 10d., and now cost 40s. 5d. Hitherto makers of stove grates, kitcheners, baths, and such classes of ironwork, have had breakages, which of course are considerable, returned and replaced free of carriage by railway companies. Now both the return and replacement are to be charged, and not even at the original rate of consignment, but at what are called "smalls" rates. The old rate for small goods—that is, parcels which do not come under "per ton" rate, are raised about 50 per cent. For the carriage of "smalls"—parcels, that is, not exceeding 3 cwt. in weight, the old scale was sufficiently complicated, but the nature of the new scale may be gathered from the fact that it differentiates now nine times according to the tonnage rate between 3s. 4d. and 6s. 8d., and the new table contains 216 columns or divisions as against the 48 columns in the old.

Sugar formerly enjoyed exceptional treatment in special rates, and as the most important article of imported food next to corn it certainly deserves similar treatment now. Nevertheless the rates have been raised to an extent equal on the whole consumption of the country to a burden of £150,000 a year. In addition to this, the distributing trade of London

would be seriously injured if the new rates are to be enforced. Further, and most important of all, the preferential rates in favour of the foreign refiners, which have been so long injurious to the English trade, are not only continued, but the discrepancy is even greater than it was before. This is particularly the case on the Southern lines, where the rates from London have been very materially increased, while through rates on foreign sugars have been left untouched. The deputation represented a trade of something like 400,000 or 500,000 tons a year.

Mr. G. E. Locket, hon. sec. to the Society of Coal Merchants, writes :—

"There appears to be a general belief that it is in consequence of the reductions they have been compelled to make in the rates on heavy mineral traffic that the railway companies have increased their charges for the carriage of other goods. Will you allow me to dispel this fallacy by pointing out that in the case of coal the cost of carriage is increased, not reduced, in most instances by about 4 per cent.? It is calculated that, on an assumed import into London by rail of 10,000,000 tons per annum, the Metropolis alone will have to pay an additional £120,000 to £130,000 every year to the railway companies in consequence of the alteration."

In the iron trade of Staffordshire the rates on manufactured iron remained unaltered, and bars exceeding one cwt were reduced, but these are less than 5 per cent. of the total quantity. All minerals were raised from 5 to 15 per cent. Fire-bricks, timber, and hardware of every kind, except bedsteads, were greatly advanced.

Add to these the timber merchants, the wholesale drapers, the fish traders, the brewers, and others which space does not permit to mention, and it would seem that every industry was upset. Sir Courtenay Boyle in a letter to the Railway Companies' Association (February 28th, 1893) thus summarises the case as it then stood :—

"The omission to state the rebates allowed in a collection and delivery rate when either collection or delivery or both are not performed by the railway company; the condition that the agreement for conveyance at owner's risk rate is to be stamped by the trader, and that the trader is to be asked to agree to an amount of exemption from liability on behalf of the company which is not reasonable in itself and the legality of which is open to serious doubt; the obligation proposed to be imposed upon consignors of milk to mark their cans on the inside, and to allow of an examination in transit, which can only be performed at the risk of injury to the milk; the withdrawal of the concession formerly made that drovers have free passes when accompanying live stock in transit[1]—this withdrawal not even being accompanied as a rule by the provision of third-class accommodation for the persons in charge of the stock; the impossibility of distinguishing the rates set out in the rate-books between a rate which is from station to station and a rate which is from station to siding or siding to siding, and the impossibility of ascertaining whether station terminals are or are not included in the rate, without the provision of terminal accommodation at both ends of the journey; the adoption of the divisor 113, instead

[1] The old arrangement has since been restored.

of that of 144, in the measurement of timber, notwithstanding the alleged fact that the companies purchase timber measured with the divisor of 144.

"Upon these and other matters too numerous to set out here, traders complain of the alteration of the conditions of traffic.

"They also complain of a material alteration in the percentage of reduction allowed when traffic is carried at owner's risk rates; and, in brief, they complain that, generally speaking, under the various heads of carriage they have to pay far more for the transit of goods consigned to railway companies than they had to pay before the several Railway Rates and Charges Confirmation Acts came into force on January 1st, 1893.

"The Board of Trade were assured by several of the railway companies concerned that the operation of those Acts would be in very many instances to reduce, not only the existing powers of charge, but actual rates in force before the passing of those Acts.

"But up to the present no instance has been proved to the satisfaction of the Board of Trade in which there has been any material reduction of rate in consequence of the action of the Legislature. The Board of Trade have no material by which they themselves could combat the allegations that the increase of rates has been serious while the reductions have been inconsiderable in their effect."

On the other hand, the President of the Board of Trade stated in the House of Commons (April 14th, 1893) that he had received a letter from Sir Henry Oakley on behalf of the Railway Association, dated April 12th, enclosing a statement issued by the railway companies to their several stations containing a list of articles to be charged at rates other than the ordinary class rates. That this revision has removed, so far as classification is concerned, any grounds of dissatisfaction, except such as were in existence in 1892. That "the conditions under which traffic is carried have been reconsidered in great detail, with the fullest desire to meet all reasonable objections"; that "the owners' risk conditions and allowances have been revised, and those of 1892 generally restored"; "the conditions under which timber was carried have been reinstated"; "the *minimum* fractional weight charge applicable to large consignments has been modified"; "the 'smalls' scale for consignments below 3 cwt. has been reduced"; "a considerable reduction has been made in the scale for empties"; that "the companies have endeavoured to carry out in the most prompt and effective manner the assurance given by several of the chairmen to the President of the Board of Trade that no increased rates should be maintained which would interfere with trade or agriculture, and that no increase exceeding 5 per cent. should, unless under exceptional circumstances, be permitted"; that the instructions given are believed to "have proved effectual, and that the only question upon rates, unless under exceptional circumstances, now remaining open between any trader and any company is whether, when rates have been increased by not more than 5 per cent., such increases should be maintained, and this dis-

cussion, which is necessarily one of detail, dealing with the circumstances of each case, is proceeding." Time has not permitted for the insertion of the revised rates in the rate-books, but this work, which is one of great complexity, will be completed as soon as possible, and that, "upon the whole, the companies believe that the general dissatisfaction which found expression in the month of January last has been now to a great extent, if not altogether, removed, and, although many questions yet remain to be dealt with, the great bulk of the colossal work of revision under the Acts of 1891 and 1892 has now been accomplished."

On this statement Sir J. Whitehead gave notice that he would ask leave to bring in a temporary Bill to declare illegal all railway rates and charges which exceed those actually being paid on December 31st last, except under the special permission of the Board of Trade or an authority created for the purpose of dealing with complaints, such temporary Bill not to prejudice the rights of the public in regard to further reductions of rates and charges. (Cheers from all parts of the House.)

A select Committee has been appointed "to inquire into the manner in which the railway companies have exercised the powers conferred upon them by the Railway Rates and Charges Order Confirmation Acts, 1891-92, and to consider whether it is desirable to adopt any other than the existing means of settling differences arising between the companies and the public with respect to the rates and conditions of charges for the conveyance of goods." It looks as if the work of the past 5 years had to be done over again. The Committee is a good one, and with the concessions made by the railway companies, it may conclude a truce between them and the traders. But the problem how the nation is to get the best results out of its railways will not thereby be solved.

CHAPTER X.

STATE PURCHASE.

"The monopoly of the Post Office is a mutual co-operative concern, in which every member of the community has an interest, and which every one helps to maintain in efficiency and good working order by watchful supervision. It is not a mere commercial industry, maintained for the benefit of the few who risk their capital in speculation. It is maintained for the general good of the community and for the public service. . . . Monopolies are held in pious horror by the critical public, but it fails to draw a distinction between a monopoly held by the few for their own personal benefit, at the expense of the many, and that held by the many for their own purposes, comforts, and economies."—W. H. PREECE, Inaugural Address, Institution of Civil Engineers, January 27th, 1893.

IF railway improvement were not subordinate to railway dividends, very considerable reforms would be made in railway management. There is economy that refrains from outlay, however needful, because it may not bring compensatory income; and also an economy arising from improved methods, possible under a complete amalgamation of the railways. Considering their small margin of profit the companies have done much to improve their respective systems; but it is just possible that we may have seen them at their best, and that, should dividends become lowered by the increased price of labour and fuel, they may deteriorate. The resolution of the London County Council to overhaul the 200 stations in its districts implies some need for improvement, and there are other signs. Some railways constructed thirty or forty years ago have not kept pace in their station accommodation with the

vast growth of population and of suburban traffic. On badly-paying lines necessary repairs are deferred to make up for low dividends. The Indian Government can inspect every line half-yearly, with power to close any section of it not in proper condition. Once a line is passed here, the Board of Trade has no such power. On the prosperous lines, while admitting that carriages are better, trains quicker and safer, no one supposes that we have arrived at the limit of improvement, even in the ordinary convenience of travelling.[1] The accommodation

[1] Some of the London vestries have asked that railway bridges should be rendered noiseless, which is quite practicable. It has been suggested that no railway bridge over the Thames should be built without footways for pedestrians. In an article on railway development the *Times* says :—

"In the matter of the comfort and convenience of the railway traveller, it is hardly too much to say that we are only just beginning to escape from the tyranny of established fact and routine. . . . All travellers must appreciate the advantage of being able to remove from the neighbourhood of a disagreeable or importunate companion, to summon the guard in case of emergency without stopping the train, to obtain food and consume it on the journey, to smoke in comfort on occasion without having to sit for hours in the fumes of other people's tobacco, and to use a lavatory without having to quit the train. All these conveniences and advantages are possible in trains constructed on the Pullman principle, and their regular provision by the leading railway companies seems to be now merely a question of time. . . . The light afforded is still so scanty and so inconveniently placed that comfort in reading is altogether out of the question. On the shortcomings of the costly, cumbrous, and ludicrously inefficient method of heating railway carriages by means of hot water tins we need hardly dwell at length. The whole system is a barbarous anachronism, of which the utmost that can be said is that it is, perhaps, a little better than nothing, and that, in the event of a collision, there is no possibility of its increasing the catastrophe by setting fire to the train. It must be obvious that in both these respects there is room for an almost indefinite amount of improvement, and no sensible man will consider that the comfort and convenience of railway travel have even begun to approach their limits until

might as much surpass the present as ours does that of forty years ago. But when improvement means large outlay that would affect dividends, managers must look at it with a jealous eye. To this we may add the scandalous overcrowding of trains, the main reason for which is to drive the public out of the third class, to which they are constantly tending, into the second, and the second into the first class carriages. We do not refer to the great gatherings returning from scenes of amusement, when brutal crushes of surging crowds are usual incidents and treated as of no consequence. It is more difficult to account for the proverbial railway unpunctuality, as shown by the Board of Trade returns.[1] And if such matters as these are not likely to receive attention from the companies, how much less will the more important improvements in administration? Hence, every few years some committee or commission becomes the instrument of lodging increased powers in the Board of Trade to remedy this or that shortcoming; but the Board cannot remove the fundamental defects of a system that leaves the public welfare and private interests on opposite sides. It is only as a check against extreme abuses that the

railway carriages are warmed in cold weather to a temperature conducive to health and comfort, and lighted in such a manner that a passenger of average sight can read at night without serious injury to his eyesight."—*Times*, June 9, 1892.

[1] That for 1891, according to the *Times* (Dec. 24, 1892), "leaves much, very much, to be desired. In September, for instance, the percentage of punctuality of up trains on most lines was under 10 per cent. On the Great Northern and the Midland it was more like 5 per cent. On the Caledonian between Aberdeen and Edinburgh it fell to under 1 per cent., a figure that is only beaten by the down trains of the Highland from Perth to Inverness, which show ·77 per cent. punctual, as against 40 per cent. over 30 minutes late. Surely directors and managers should lay to heart the lesson of these figures. It can hardly be claimed that they are creditable to English railway management."

Board has power to act, and much of its effect depends upon the sort of president whom the accidents of politics place at its head. The railway system and the public interests should not depend on such accidents. We see that the new legislation of 1888 and 1891 will not settle the questions at issue between the traders, the public, and the companies. The old contests have revived with greater intensity. Managers try to protect the interests of shareholders, and all those advantages which those *inside* of a business understand so much better than those *outside* of it are made available. The new legislation "leaves untouched the whole subject of differential rates and the unequal treatment of traders, districts, and home and foreign goods"—and we are again brought face to face with the problem stated by Mr. Acworth: Shall American meat be charged 25s. from Liverpool to London and English meat be charged 40s. for the same journey? To charge them alike is said to be disguised Protection.[1] If so, it is protection which farmers and consumers will not readily give up to please railway companies. What the public asks and some day will obtain is the best possible carriage of goods and passengers at the lowest possible charge, even if the effect should be "to send the Peninsular and Oriental Company and the East India Docks into liquidation." On the ordinary public high road such a question could not be asked, and it is easy to see that it only is so in the case of the iron one, because it unfortunately happens to be private property.

An unreasonable distrust of Government interference delays this, the only effectual reform of the railway system. The abuses formerly due to irresponsible authority, though removed, are still attributed to it. Government is now amenable to the

[1] "Railway Economies." By W. M. Acworth. *Economic Journal*, June, 1892, p. 398.

popular will, and if an abuse exists, it is because that will is too idle or too ignorant to express itself, as in the one instance of the army, which defies reform for reasons well understood and not likely to be repeated in any other public function. Every fault or shortcoming of the State is magnified and multiplied by the hundred-eyed (raised to the millionth power) Argus press, and when tested is mostly found to be baseless. The late Sir George Findlay said that "all experience of the working and expenditure of Government departments is strongly opposed to the belief that so vast and difficult an undertaking as the administration of the railways of the country could be carried on economically and upon sound commercial principles by a department of State," and he feared that the House of Commons, already overburdened with detail, would find its labours much increased, etc. There is no reason to suppose that the House of Commons would be troubled about matters which should be left to a special independent authority created for the purpose.

There would be more force in Sir George Findlay's objection if administrative functions could not be separated from political considerations. For instance, until the United States can do this, she must abandon the idea of controlling her railways in the general public interest. If she cannot own them apart from the vicissitudes of party politics, *tant pis pour les Americains*, as the Frenchman said of the facts that were against him. The rule now in danger, of the "spoils to the victors," would never work with the vast number of railway employés to be supplanted at each presidential election. The Belgian and German Governments, and to some extent the legislatures of our Australian Colonies, do not seem to be overburdened with the details of railway management. As Sir George Findlay said, the secret of organising a great service "is nothing

more than a carefully arranged system of devolution combined with watchful supervision."

Of course State railways must be managed by railway men, not by officials whose whole training is remote from practical life, who know little of commercial interests and almost despise them, and, as officials, liable to lose their offices just when they have learnt their business. It is to the present experienced heads of the railways that we must look, but the difference would be that, instead of managing them in the interests of the companies, they would manage them under a special department in that of the nation at large.

Sir H. W. Tyler suggested an influential council that could not be overruled by one faction or the other—an independent body, more independent than any existing Government department; and if that body was even presided over by a minister of the Crown, which might not be avoidable—their will, and not his—should govern. He pointed out that as to political influence in the appointment of officers, "you cannot appoint a man to a place worth several hundreds a year over a railway, to do railway work, unless he has been brought up to it; and in practice men have to enter the railway service at an early age, and gradually rise to their work."[1]

We are warned that continental countries differ from England and America in "that the former are administrative, the latter parliamentary; that the Executive may design, construct, or operate a railroad; the legislature never can." The remark is just, and the conclusion is an apposite one, viz., that parliamentary government must (as, in fact, it is doing more and more) adapt itself to the machinery required in the public interest. That is the final end of

[1] "Select Committee on Railway Companies' Amalgamation, 1872." Evidence of Captain (*now Sir*) H. W. Tyler; Questions 6,961 to 717,053.

government, not only good government, but the best government, even if it be "a government of bureaus." It has nothing in common with schemes to raise prices of commodities for the benefit of one portion of the community at the cost of another. It is organisation for the benefit of the whole, by which all must gain and none may lose. To talk about "red tape," "officialism," etc., substituting phrases for facts, suffices to condemn, in some minds, the most necessary organisations of the State. Men who heartily support factory, sanitary, poor-law, shipping, and numerous other forms of protective (in its best sense) legislation, condemn with unconscious want of logic the basis which alone justifies it.

The fear of State control was more prevalent thirty years ago than now, when the public have begun to recognise the value of its powerful organisation in promoting the general welfare. At that time even so advanced a reformer as the author of the penny postage, Sir Rowland Hill,[1] while advocating State purchase of railways, yet thought "that, nevertheless, Government should not itself attempt the immediate management of the lines, but should *lease* them to companies or individuals, though retaining the power to enforce the observance of all regulations necessary for public safety and convenience;" and there are many now who think that this system would best solve the difficulties of the railway problem. The

[1] Royal Commission on Railways, 1865. Sir Rowland Hill thus states his reasons "why railways should belong to Government." 1. That the formation of competing lines, while not producing, but rather preventing permanent reduction of rates, has grievously injured the interests of existing companies and tended to check the useful extension of lines and other improvements. 2. That railways being shown by experience to be essentially monopolies, cannot be advantageously left to independent companies, but should be in the hands of those who are charged with the interests of the country at large, viz. —the Government.

views of so high an authority deserve some consideration.[1]

To lease the lines is to interpose another authority at the cost of a second profit. It would be difficult to settle permanently satisfactory terms between a lessee and the State. The lessees would have a direct interest in starving the plant, in allowing the permanent way to fall into disrepair; an interest in lowering the wages, and in lengthening the hours of the employés, with all the temptations of private emolument at the cost of efficiency. The risk of joint ownership is that if the management is not satisfactory, the State cannot easily remedy it; disputes are likely to arise with lessees who would probably get the best of the bargain. The United States affords examples of some of the States owning their lines but not working them.[2] In the

[1] Sir Rowland Hill suggested "that the head of the department should be a *permanent* officer, selected with exclusive reference to fitness for the post, and should have the full powers necessary to complete responsibility."

[2] These have not been very profitable to the States and cities, which have incurred considerable debts to foster railroad enterprise. One railway, the Western and Atlanta (138 miles), which proved to be a profitable one, was leased by Georgia from December, 1890, for 29 years, to the Nashville, Chattanooga and St. Louis Railroad Company for 420,012 dols. per year. The city of Portland incurred half its debt to buy stock in the Portland and Ogdensburg Railroad to the amount of 2,356,150 dols., borrowed at 6 per cent., which it has leased at 2 per cent. for 999 years to the Main Central Railroad Company. The State of Pennsylvania incurred heavy obligations early in the century for railways and canals, "more to benefit private than public interests, and consequently without judgment, while the work itself was poorly and unskilfully done." In 1857 the State sold its "main line" from Pennsylvania to Pittsburgh for 7,500,000 dols., and in 1859 another line (subsequently resold) for 3,500,000 dols. to another company whose bonds the State owns to the extent of 1,900,000 dols. The city of Cincinnati owns the entire stock of the Cincinnati Southern Railroad, and will only receive sufficient interest to cover that due on its bonds from the year 1901 until 1906, when its lease expires. Mr. Kirkman says

leased lines in India, and the subventionised lines of South America the State has to maintain a rigorous supervision, almost as troublesome as sole management, besides losing profit. In the leased tramways belonging to many of our local corporations, there is the watchful control of a popularly elected body perfectly cognisant of the work to be done. But even they are finding that they could better work directly instead of through lessees.[1]

Lessees would have to run more or less risk, and would expect to indemnify themselves against it, so that whoever lost by the arrangement, they would not. They might even become default and the railway be left with no one to assume its obligations and responsibilities. If a company is a costly and clumsy instrument for managing a railway, at least it is permanent, and can only be advantageously superseded by a permanent department, with a trained staff (which we possess in the present managers). On the Continent they solved this question a generation ago, while we were grumbling and theorising. As Captain (now Sir H. W.) Tyler said, "All the organisation and machinery are already provided, even if it had all to be taken over at once for working it. Further, this organisation, complicated as it may be, and widespread as are its ramifications, is kept in working order by constant duty; and it is just as available for work under the State as it is for work under boards of directors. The different railway

that fifty years ago Illinois constructed a road that cost 1,000,000 dols. and sold it for a tenth of that sum, and that Massachusetts and Michigan acquired railroads, but sold them because they believed that transportation was a private and not a public function.

[1] The Report of the Royal Commission of 1865 discussed the question of leasing the lines, and showed how untenable the proposal was. The report, however, treated the question of purchase and management by a separate department of the State as on the same footing as that of leasing.

systems have their general managers, their traffic superintendents, their locomotive superintendents, and their engineers; and these have their departments, with men, machinery, and plant in active operation. The officials would, further, have more time and attention to devote to their duties, and better means of performing them, if they were all working under one general management, and for one common object—whether a joint stock association, or the State—than under the present system. Parliamentary railway contests would cease, lawsuits between railway companies would be no more. Traffic would not be forced in wrong directions. Facilities would be increased. Through rates and fares at lower figures would prevail. There would be no clashing arrangements between rival companies at junction stations. Managers would cease to outmanœuvre one another, and would devote themselves each to the improvement of his own district; and a rivalry of efficiency would thus take the place of perversity or hostility in working."[1]

There would be abundant checks upon mismanagement. That objection would have more force if there were no practical experience in existing State railways; in a comparatively free country like our own, the checks on State management would be more stringent than they can possibly be on the present private companies.[2] The evils of State control are

[1] Sir H. W. Tyler. "Purchase of Railways by the State," *Journal of Statistical Society*, 1873, p. 215. It is only just to say that some of the evils referred to have been remedied by the Clearing House system and later legislation.

[2] As Mr. Scudamore said in a speech on the Post Office at Edinburgh. "This great establishment was rendered efficient, because it was worked under the eye of the public, its master; because it was brought face to face with that master, not merely from day to day, but from hour to hour; because it did work that was absolutely necessary to its master—which, when well done, was of the highest possible advantage, and which, if ill

accidents, not necessary parts of it, which experience is teaching us how to avoid. The alternative of the State is the company—the one acting publicly in the sight of all men, responsible, theoretically at least, bound to work in the general interest; the other responsible only to its shareholders, and acting primarily in their behalf, able to conceal its transactions even from them and more completely from the public eye. So little did Robert Stephenson think of the efficiency of "a directorate elected from the shareholders, that he too would farm out the railway which he thought would secure good dividends to shareholders and accommodation to the public; and that the only individuals who would suffer are the gentlemen who play with money which is not their own." The late Sir George Findlay, the able manager of the London and North Western, told the Royal Commissioners of 1886 that, if all the Irish lines were amalgamated into one system, he could manage the concern with four days' work a week and have the other two days to spare for fishing, and dispense with the 270 directors, 37 secretaries, and 20 managers it then required.

Nor is it necessary to transfer all railways to the State at one time. In the Royal Commission of 1865, Mr. Galt strongly urged that experiments should be made of reduced fares on a few lines (guaranteeing them against loss) for a period to test what later experience has demonstrated. "The fool is a man who never makes an experiment." Sir Rowland Hill also recommended this course. In almost every country which has adopted State railways there are private

done, was utterly intolerable. . . A dilatory letter-carrier, a postmaster who could not cash a money order, a telegraph clerk who made blunders, brought down a terrific complaint. . . If at any time the Government should take upon itself the acquisition of the railways, somewhat similar results would follow. — *Journal of Statistical Society*, 1873, p. 217.

companies, subject to conditions fixed by the State on behalf of the community, and the contrast of working has been useful to both. Those of the State have not suffered by comparison. But ultimately the State should absorb the private lines. Mr. A. J. Williams proposed to divide the English railways into five non-competing systems, based on districts, each district having as its general manager one of the central board of management.[1] A commencement might be made by putting the whole Irish railways into one group and the Scotch into another. Instead of hundreds of companies there might be a few subordinate systems of management under a central authority and a code for the whole not larger than the Act that governs each. The ordinary railway board would become needless, and a thousand railway directors be spared. The real railway board—that which actually governs—consists of the managers, who meet in the Clearing House, and who settle rates and conditions of traffic.[2] The functions of the Clearing House would possibly be needless—at least, greatly reduced

[1] "Appropriation of the Railways by the State," by Arthur John Williams, M.P. This work is, unfortunately, out of print, but time has only increased the cogency of its conclusions. Mr. Williams suggested the following districts :—

1. The Metropolitan (comprising the short suburban lines).
2. The Southern (comprising the Great Western, London and South Western, London and Brighton, and London, Chatham and Dover).
3. The Western (comprising the London and North Western, and Wales).
4. The Midland (comprising the lines which occupy the middle of the kingdom).
5. The Eastern (comprising the Midland, Great Northern, and Great Eastern).

[2] For a very interesting account of the mode in which the railway managers agree upon rates and pool and apportion traffic receipts so as "to avoid the losses from competition," arbitrate differences, settle cases of disputed liability, will be found in Sir G. Findlay's work "On the Working and Management of an English Railway," Chapter xiii.

and simplified—if the railways were thus amalgamated. Each system would become a trust—like the Mersey Trust[1]—conducted with no reference to private gain, but in the general interest alone.

Apart from the national interests there are two other important and special ones concerned—that of the present shareholders, and that of the employés. In numbers they are about equal, but their welfare involves that of much larger numbers dependent upon them. Both should be fairly dealt with.

It has been wittily said that to "Nationalise" anything means to transfer A's property to B. Without such injustice, the country is not called upon to compensate all the mistakes (?) of the past. The share- and debenture-holder, if faring no better, should at least fare no worse than at present. Sir James Whitehead, M.P., said recently that "he found, upon going into the figures, that the market value of the twelve principal companies had increased above the money expended on the making of them by no less than £237,000,000." In the cost of the railways there is much that has added to nominal value, but little to their real value, measured by what they could have been constructed for. Mr. Joseph Locke estimated the over-compensation for land alone at £80,000,000 sterling above fair value.[2] Then there was, in one instance at least, capital raised at 60 per cent. below

[1] *See* Ante-Chapter II., p. 41.

[2] As examples it is stated that the cost for land and Parliamentary expenses for the following railways was *per mile:*

	For Land.	Parl. Expenses.
London & South Western ...	£4,000	£ 650
Great Western	6,300	1,000
London & Birmingham ...	6,300	650
London & Brighton	8,000	3,000

And that the Great Northern expended £500,000 to obtain its Act. Four lines were projected to Brighton, and the parliamentary contests over them cost in one session £100,000.

its nominal amount. There is, besides, £57,000,000[1] of *watered* stock, a term better understood in the United States than here. To these items should be added the cost of the broad gauge, abolished after an outlay of millions, and of lines £44,000,000 of which earn nothing. We can estimate our useless outlay by the fact that America, where labour is not cheap, has eight times as great a mileage at about the same outlay of capital, and three times the gross income—the United Kingdom 70 millions, the United States 220 millions. Allowing for the better construction of our lines, and that the United States gave the land, the disparity is still great.[2] It can, however, be accounted for by the abuses which attended the promotion and construction of the earlier railways, together with undue extension. Folly and fraud, under what Mr. W. H. Preece calls the "rapacious financial promoter—whose plunder in one year had far exceeded in amount the sum of the thefts of all the highwaymen and burglars that were ever hanged"—have found in later days other fields than railways to exploit. What the promoter could do then was summarised by Mr. Herbert Spencer in an essay on "Railway Morals and Railway Policy."[3] As Mr. Spencer said—"Notwithstanding the depreciation of railway dividends produced by the extension policy, that policy has been year by year continued. . . . With an ever-growing traffic dividends have fallen from 10 per cent. to 5, from 8 to 4, from 9 to 3¼; and yet the system of extensions, leases, and guarantees, notoriously the cause of this, has year by

[1] Of this £57,000,000 of nominal additions, the share of the English companies is £36,868,000, and that of the Scotch companies, £20,156,000.

[2] Mr. J. S. Jeans gives the cost of the railways as follows:—"In 1838 the average capital expenditure per mile of railway open in England and Wales was £24,630, in 1851 £36,029, in 1874 £37,078, in 1884 £42,486, and in 1891 over £45,000."

[3] Published in 1855. A few specimens will be found in Note F.

year been persevered in." And this process is still going on.

Admitting all these considerations, yet the advantages of purchase are so considerable that the State could afford to treat the companies liberally. They are only stated in order to show that the true measure of compensation is not *cost*, but *earnings*. In 1844, the difficulty that might arise with the new and growing power was foreseen. An Act was passed enacting that railways made after that date might, after twenty-one years, be purchased by the State at twenty-five years of the annual profits, on an average of three years preceding. So far from facilitating purchase, it suspended the question for twenty-one years, besides including the provision that if the profits were less than 10 per cent. they were to be taken at that amount, that being assumed to be the rate the railways were entitled to earn. Now that on the average they earn only two-fifths of that amount, no one can consider that the dividends are excessive, regarded merely as the reward for the investment of capital. A payment equivalent to their earnings, but which the State could raise at a much lower rate, would seem to be a proper compensation. If, even in 1865, the State had availed itself of the power to purchase, and also limited future construction to what was needed, the nation would have been richer by more than the amount of the national debt.[1] The longer the process of purchase is deferred, the more difficult (apart from other evils) will the problem become. It is estimated that of the thirty-six millions income from railways to share- and debenture-holders, about half is re-invested in railways again—in other words, an increased claim on the public for payments or services in some form, and which it were better went to the general than to private advantage.

[1] At that time (1844) the railways were only 2,320 miles ; in 1892 they were 20,191 miles.

It is possible that railway rates may be raised without an increase of railway profits. The companies are not likely to reduce either fares or rates, but, as recent experience has shown, will more probably endeavour to raise them as opportunity serves to the *maxima* conceded by their respective Acts, to make up for the reductions enforced by recent legislation. Apart from this, railway returns of late show that increase of gross earnings is more than eaten up by increase of working expenses.[1] The late Sir George Findlay says: "The revenue from the passenger traffic upon English railways is a diminished and diminishing quantity;" and adds that if there should be any material rise in the prices of stores (he might have added labour, as is even more probable), or a reduction of rates through the recent legislation, "the outlook for railway shareholders would be a serious one for them to contemplate."

Would the operation of purchase be difficult? It is about double that once performed for the same purpose by Germany, a poorer country than our own. In 1892 the paid-up capital of the railways was stated at £897,472,000. If shareholders received a Government Railway Stock securing them as much as they now receive, there is no doubt the large majority would prefer it. Those who did not could, as in the

[1] Mr. J. S. Jeans, secretary of the British Iron Trade Association, estimated that the substitution of steel for iron rails would bring about a saving of nearly £2,000,000 a year in the maintenance of the present mileage of the country. This large profit, however, will disappear in the increased price of materials and labour.

The railway receipts and expenses in the United Kingdom were per mile in

	1860.	1888.
Receipts	£2,670	£3,680
Expenses	1,270	1,910

showing increase per centage of expenses as compared with receipts.

reduction of the national debt, be paid off. Nor need the operation be performed at once, but by a system of gradual purchase as in Belgium. If a commencement were made, say with Ireland, experience would be gained, and financial disturbance avoided. The payment to the shareholders would be a transfer from a fluctuating to a permanently secured stock,[1]

[1] Mr. Morton Frewen's mode of stating the question is interesting :—

"The railways of the country can be bought up to-day, after paying every present shareholder the full selling value of his shares, for 850 millions sterling ; nor is there any reasonable doubt but that the present holders of shares in companies will re-invest this 850 millions in the new State Railway Consols. The operation is therefore merely conversion on a large scale. But the annual net profit of all the railways is thirty-seven millions sterling, or more than 4¼ per cent. upon the purchase money. What, then, is the value to the State of an asset of this nature—an asset, too, which has an unearned increment growing from year to year? A Three per Cent. State Railway Consol, not subject to conversion, would be worth quite 106, so that the State could capitalise its railways to pay the annual interest charges upon some 1,307 millions sterling, or, deducting the amount of the purchase money, there would remain a profit of 457 millions sterling, or over £12 per capita for every inhabitant of the United Kingdom. It may be said, however, that while the 850 millions paid to shareholders would be reinvested in the new railway consols, because it could not safely go elsewhere, yet the savings of capital would not be sufficient to absorb, at the present rate of accumulation, the entire sum which would be applied for, and in the meantime the State would do well to issue a hundred millions of paper currency, secured as to-day in the United States by consols—by the unallotted railway consols in this case under consideration. This hundred millions would go far to provide for the decent housing of the working classes, and would earn 5 per cent. even after effecting a sweeping reduction of the present rents.

"Is there any valid argument against State railways? And what is the argument to be derived from experience? In Belgium, since the State purchase of the Belgian railways, freight and passenger rates have been reduced over 40 per cent., and the very opponents of the reform are now the loudest in its praises. In Prussia, the acquisition of the railways by the State is considered to have protected the agricultural interest

and even in this respect would confer a great social benefit by substituting the *investor* for the mere *speculator* who plays a game for differences. Speculation, whether in our Stock Exchange or in Wall Street, lies in discounting the future—a future dependent on the fluctuations of the weather, the variations in the amount of traffic from day to day, and on the latest *canard* that anybody can set going. A big

against the worst effects of the great fall in produce prices, while supplying to the operative classes in the towns both cheaper food and cheaper transportation. In Austria-Hungary, the recent experiment made on the State roads of a sweeping reduction in passenger rates has quadrupled the travel in the past twelve months, and this increased volume of business has actually increased by 17 per cent. the net earnings of the roads from passenger traffic. Whereas in England the migration of labour in search of work and wages is taxed at the rate of a penny per mile, in Hungary to-day the working men can travel six miles for a penny.

"'We have got the best railway service in the world,' say a handful of the community, who, being shareholders, prefer 4 per cent. to 3 per cent.; 'in what other country can you travel so comfortably when journeying to your grouse moor fifty miles an hour?' But there is the other view, that the competition between half-empty express trains, while it secures to the duke a compartment to himself, is yet a direct tax on third-class local travellers; while freight charges remain so excessively high that foreign imports carried at barely a third of our rates per mile over such roads as the Pennsylvania or the New York Central have well-nigh wrecked the landed interest in these islands, and expatriated a splendid peasantry.

"Just as the reduction by the State of the postal rate to a penny, though costly for the first five years, has since so enormously stimulated business that, while serving the public convenience, it has added three millions to the public revenue, so also the economic arguments in favour of State railways point to largely increased net profits later from such sweeping reductions of the tariff as no joint stock company obliged to pay yearly dividends dares to imitate. It would, however, transcend the limits of the present paper to enter at length upon the economic aspects of the question, but I write with the strong conviction that the purchase of the railways by the State ought to be, and will be, a permanent plank in any new Liberal platform."—*Pall Mall Gazette.*

accident sends down the price of railway stock, while railway dividends are constantly fluctuating —the first half year less profitable than the second. Uncertainty is an evil to investors, though it may suit the gambler. In the slight variations of a Government railway stock, there is not so much margin for "contangoes;" the respective charms of "Berthas" and "Saras," of "Doras" and "Noras," would remain unnoticed, while "Bulls" and "Bears" would find their occupations curtailed, particularly if, as with bank shares, no man could legally sell stock that he did not possess.

In estimating the compensation to be paid for the railways, it is said we overlook the speculator, that the first rumour of such a proposal would send up the price of the stock by millions. "Tens of thousands, who had never speculated before, would rush in to gamble for a part of the stupendous prize."[1] If the State could contemplate such an insane act as to purchase railway stock at its speculative instead of its earning value, the objection would be fatal. As we have seen, the German Government, when it bought its railways, made no such silly bargain as is here contemplated. The frightful consequences that would ensue—"speculation on every Stock Exchange in England, and perhaps in the world, property of enormous value changing hands, capital to an enormous sum that would have to be created, or liabilities to a like amount that would have to be incurred, national debt increased to two thousand million sterling"—are simply figments of the imagination. Compare this farrago with the calm statement of a higher authority, and an opponent of State-ownership of railways. Sir George Findlay, while believing that the transfer of the railways to the State would not realise the sanguine anticipations of its advocates,

[1] "Our Iron Roads," p. 479.

admits its possibility upon fair compensation to their present owners, which he considers should be as follows:—

On lines earning a profit, Government should guarantee a dividend taken at the average of three years preceding the purchase.

Lines paying no dividend (about £56,000,000 sterling) to be taken at half their nominal value, the Government paying 2½ per cent. on that amount.

Lines under construction to be taken at their nominal amount, the Government paying 2½ per cent. thereon.

A Government railway consolidated stock to be created, and the stocks of the different companies to be converted into it on the principle of equivalents; thus if the Government Consols bear 2½ per cent. interest, a company with £5,000,000 capital, paying 4 per cent., would receive £8,000,000 Government bonds.[1]

[1] The following table is a statement of the rates of interest or dividend paid on the different descriptions of capital in 1890, and the amount at each rate:—

Rate of Interest or Dividend.	Ordinary Capital.	Guaranteed Capital.	Preferential Capital.	Loans and Debenture Stock.
	£	£	£	£
Nil	44,675,999	179,576	11,077,676	—
Not above 1 %... ...	10,771,297	—	470,137	417,365
Above 1 & not over 2%	3,291,795	101,180	1,660,000	131,901
,, 2 ,, 3 ,,	35,742,532	—	1,561,893	32,535,796
,, 3 ,, 4 ,,	30,067,903	55,739,540	156,538,273	145,953,937
,, 4 ,, 5 ,,	58,680,161	38,605,041	59,478,843	51,796,829
,, 5 ,, 6 ,,	24,275,097	4,119,580	3,291,724	1,663,842
,, 6 ,, 7 ,,	54,967,944	—	13,540	—
,, 7 ,, 8 ,,	67,478,743	—	—	11,200
,, 8 ,, 9 ,,	1,027,800	2,000	—	—
,, 9 ,, 10 ,,	1,090,882	50,000	—	—
Total	332,370,153	98,796,917	234,092,086	232,512,870

On this basis he anticipated a loss of nearly £1,000,000 to the State. Such estimates, however, depend upon the elements of the calculation. Another one assumes £900,000,000 as the sum required, and that the State could borrow at 2½ per cent., making £22,500,000; and as the profits equal £36,500,000, thus is left a surplus of £14,000,000. Sir George Findlay's estimate is probably more approximate, but he allowed nothing for the saving of the salaries paid to numerous boards of directors, nor for "the concentration of the management, the absence of competition, and the profits of the companies," and, above all, the economy created by unity of management.

Mr. Frederick Hill suggested that even without creating a Government stock, "the purchase could be effected by means of a fixed annual payment, like the rent of a Scottish feu, and in the form of a dividend on the shares of each railway, and of interest on its debentures."

Sir H. W. Tyler said it would not be necessary to pay a farthing in cash, but merely to hand the stockholders the Government paper, *at not less value*, in place of the company paper. If the process were properly done, not all at one moment, it would cause no depreciation of consols, but the reverse, because the change would add to the prosperity of the country.

Other modes might be devised when the question of purchase becomes one of practical politics, as some day it must, because upon the railways and the facilities they offer so much of the prosperity of the nation depends. Hence almost all countries have subsidised them by large grants of land in some instances, by large money grants in others, and by taking the entire charge in others, and again in others by providing that the railways should one day lapse to the State. If English shareholders were paid by terminable annuities it would have the same result,

and the original mistake of omitting reversion to the State would thus be rectified.

If State purchase of the railways should leave shareholders at least no worse off, it is to be hoped that it would render the condition of the 400,000 servants employed on the railways better, and with it the lot of probably a million persons dependent upon them. It is a new-born hope, for, until recently, the theory of State employment was the same wretched dogma that prevails too generally, viz., buy your labour in the cheapest market, though its conditions are starvation, disease, prostitution and premature death. This was illustrated in the Post Office, the Government clothing, and other departments of State employment; and how the State treated its soldiers a late inquiry has made well known. Where the tramways have been leased by Corporations, popular control has checked the oppression to which private companies generally show themselves so profoundly indifferent.[1] Though the railway companies sometimes give more than the salary of a Cabinet Minister to their managers, some of them underpay and overwork their employés. The means of resistance to tyranny are very limited, because the conditions are so little under the public eye. With reference to wages there has, no doubt, been an increase on some lines. Sir George Findlay stated that on the London and North Western, while gross receipts in the past eight years increased 12 per cent., wages had increased 21 per cent., including the larger staff due to shorter hours. Generally speaking, however, railway servants

[1] In Glasgow, where the Corporation leases the tramways, the exactions of the company in respect of overwork and wages were so great that public feeling was aroused, and the Corporation will work the tram line itself in 1894. The demand there is for a ten hours' day. Investigation of the company's accounts shows that there is no risk of loss to the Corporation.

are not well paid,[1] considering their longer hours and more dangerous work compared with other employments. At the stations this is so well recognised that the fee system has become general. One railway paying high dividends (there may be others) counts so entirely on this bad system that it gives to a considerable number of its porters *no wages whatever;* they are paid by *tips*, degrading the receiver and taxing the public who encourage it. Trades Unions can do something to mend wages, but the directors of the companies decline to recognise the Trades Unions. Any railway servant (and it is only such who know the facts) who complains is a marked man, and does it at the peril of his bread. But this is a minor evil compared with overwork. There is to be another interference by the Board of Trade, but we doubt if it will be of much effect. The Government has introduced the "Railway Servants (Hours of Labour) Bill, 1893," giving the Board power in case of complaint to inquire into the hours worked by any railway company. The Board

"shall order the company to submit to them within a period specified such a schedule of time for the duty of the servants, or of any class of the servants, of the company as will, in the opinion of the Board, bring the actual hours of work within reasonable limits, regard being had to all the circumstances of the traffic and to the nature of the work;" and also "that the railway companies shall make annual returns to the Board of Trade, showing the number of hours worked per day by each of their shunters, porters, platelayers, drivers, firemen, guards, and signalmen."

A resolution was proposed by Sir J. Gorst providing that if any signalman was employed for more than eight hours (exclusive of meal times), or any other

[1] Before the Labour Commission, Mr. R. Giffen gave the average wages for men in thirty-eight separate occupations at about £64, in building trades £70, and in railways £59, which would make over £20,000,000 sterling spent in railway wages (?).

servant more than ten hours, such employment should be regarded as excessive, and should not be approved unless satisfactory evidence was produced that it was necessary. This very reasonable proposition was rejected by the House of Commons by 257 votes to 71 in favour. But more surprising still was a deputation of enginemen and firemen that waited upon the President of the Board of Trade (April 22nd, 1893) to urge upon him the undesirability of fixing the hours of "running labour." They declared that the hours of labour were not excessive, and averaged nine hours. One of them expressed the touching fear that if Parliament interfered "they would not, as now, have access to the directors." How far they were authorised to speak for other classes of railway labour does not appear. Notwithstanding these expressions of opinion, the excessive hours of railway labour and the want of proper precautions against accidents have had the result that the most magnificent instrument of modern science, to which we owe such great advantages, has been one of oppression to those who administer it. Mr. Channing, M.P., says :—

"It took over twenty years of repeated and ghastly demonstrations of urgent necessity to get the Act of 1889 carried, which gave the Board of Trade power to insist that there should be proper block-working and signal arrangements, and that trains should have safe brakes. It was only after nearly 300 little innocents on their way from Armagh to a joyous summer holiday were slain or maimed by the failure of a brake, which the secretary of the company had promised to do away with fifteen years before on the occasion of a slighter accident, that the State stepped in and did its duty. So with the hours question. A generation ago the organisations of the railway servants asked for administrative pressure from the Board of Trade to shorten excessive hours and to check undermanning of the lines."

The directors may be good, kindly people, but they do not fully recognise the evils they tolerate, and will probably resist interference.

The Board of Trade may draw up its regulations, but the new virtue will relapse into the old vice. The strongest wins, and the directors, including the memorable worthy who gave evidence at the inquest on the guard Chowles, are the strongest.[1]

And truly the inquiry before the Select Committee on the hours of railway servants did not take place too soon. So long ago as 1873 the Board issued a circular to the railway companies informing them that the large majority of accidents were due to their own want of proper precautions. In the years 1889 and 1890, out of 122 inquiries by the Board of Trade, in fourteen the *accident* was mainly due to the excessive hours of work. A great mass of evidence was taken by the committee, proving conclusively the following propositions of the admirable independent report of Mr. F. A. Channing, M.P.—viz., that :

(i.) Overwork on the railways of the United Kingdom is widespread and, in general, systematic, and not accidental or exceptional;

(ii.) The demands of the men for a fair day's work, so far as they have been formulated through their Unions, are reasonable, but cannot under existing circumstances be obtained by means of conciliation or arbitration ;

(iii.) While steps have been taken on some railways in the right direction to bring hours within fair limits, the returns of overtime work and the evidence proved that there has not been, and is not likely to be, general and effectual reform, if this matter is left to take care of itself ;

(iv.) Railways are State-granted monopolies, and the State has the right and the duty to insist on safe working and just conditions of labour, including reasonable hours.

[1] He told the jury that he did not think 24 hours' continuous duty would impair a man's faculties so as to render him incapable of recognising danger ! Yet if these questions were submitted to a meeting of shareholders by one of themselves the probability is that he would be hooted down or, at least refused a hearing.

Though Mr. Channing's report was not adopted by the committee, the one that was adopted confirms its statements.[1] While no one supposes that railway

[1] A few extracts are selected :

The report gives credit to the London and North Western, the Great Western, the Midland, the Great Eastern, and other companies not specifically named, for effecting great improvements by a constant attention to the subject, by a large expenditure on new works to meet the increase of traffic, and by a carefully-organised system of reliefs, and the provision of comfortable accommodation for men when off duty and absent from home. It is maintained, however, that there are still too many cases in which excessive hours are habitually worked without adequate reason, and that no sufficient effort has been made by the companies generally to deal earnestly and thoroughly with the matter.

The committee think that the work of a signalman in a busy box or a shunter in a busy yard should not exceed eight hours, and that ten hours, exclusive of the time allowed for meals, is sufficient elsewhere, subject to the necessary allowance for such cases as those subsequently alluded to. That rest on Sunday should be more frequent among signalmen than it is, and that constant attention should be given by the companies to such a re-classification of the signal-boxes as may from time to time be required by increased traffic or other changes on the line ; and they concur in Major Marindin's opinion that long spells of work in changing from day to night duty, either worked every night, or at the end of each week, are objectionable. It should, however, be borne in mind that there are many signal-boxes on branch lines in sparsely-peopled districts, or at small stations on main lines, where the hours are often nominally long, but the work is neither heavy nor continuous. The men live at or close to the stations ; the trains are few, at long intervals ; the traffic is so small or of such a character that there is little shunting ; and the strain on the men cannot be compared with that of far shorter hours in a busy box. If exceptions could not be made in such cases, the companies might be compelled either to take off their early or late trains, to the great inconvenience of the public, or possibly even to close a station altogether, in order to avoid the cost of extra staff where the receipts are at present so small as hardly to pay for keeping it open.

After making every allowance for long hours, due to unavoidable causes, and for the fact that, in many cases, the hours paid for include intervals which are occasionally rest, and at any rate do not involve the continuous strain of "running"

service, with its varied duties and differing intensity of work, would permit of a uniform scale of hours, everyone must feel that if life is to be worth living—a life of freedom, and of reasonable enjoyment—the maximum of hours, even for the lighter duties, ought not to exceed ten in any one day. Only last year (1892) the United States Government has limited to eight hours the work of labourers and mechanics employed on public works. Reasonable hours are not eighteen hours on one day, even though the next is six hours.[1] Although the State "cannot make pointsmen perfect, or keep signalmen awake," it is

time, the committee cannot but think that the companies generally could and ought to do much more than has yet been done to confine the hours of the drivers, firemen, and guards of goods, mineral, and cattle trains within reasonable limits.

[1] The evidence of Major Marindin (Board of Trade) showed that the excessive hours were not accidental. It is necessary to explain that the "booked hours" are the time worked according to the time-table or the estimate of officials, while "working hours" mean the time a man is actually on duty, without counting the time spent in going to and from work.

Date	Working Hours.		Booked Hours.	
	H.	M.	H.	M.
September 22	18	25	14	58
„ 24	19	10	14	58
„ 26	17	35	14	58
„ 29	17	55	14	58
October 1	15	45	14	58
„ 3	19	2	14	58
„ 6	19	55	14	58
„ 8	20	0	14	58
„ 10	17	48	16	9
„ 13	23	15	14	58
„ 15	22	18	14	58

Major Marindin, having examined the time of other men employed upon the Midland and South Western Junction Railway, declares there are many cases in which the booked time is too long, while there are far too many instances in which, owing to the trains not keeping time, the men are habitually overworked.

obvious that overwork must contribute largely to so-called accidents. Mechanical ingenuity may devise the most excellent appliances, perfect and never tiring, but the machine with which they all work is human, and breaks down under an undue strain. It is said, too, on good authority that many railway accidents are due to colour-blindness; that every company has its own tests, and all inadequate; and that hundreds of employés in responsible positions cannot distinguish red from green. Though the public suffer to a certain extent, it is, thanks to the block system, inconsiderable compared with[1] the annual "butcher's bill" of "accidents" to railway servants. Of these there were in 1891 549 killed and 3,161 injured. Of the 549 killed, only 12 were due to accidents to trains. Most of the other victims lost their lives in the shunting yards, and overwork was the primary cause, aided by a deficiency in the staff required. Of 5,922 shunters, one out of every 15 was injured, and one out of every 160 killed. Of the 10,038 brakesmen and goods-guards, one in every 19 was injured, and one in every 179 killed.[2] This, however, is not the worst element,

[1] Only five passengers of all the hundreds of millions who travelled in 1891 lost their lives, not counting 106 who lost their lives by contributory negligence, and 875 injured through accidents to trains, rolling stock and permanent way; so that, as one railway magnate said, the safest place in the world was a first-class express train.

[2] Mr. F. A. Channing's Regulation of Railways Bill, 1893, gives power to the Board of Trade to order a railway company, within a time to be limited by the order—(*a*) "to affix, or to require to be affixed, to all vehicles working in goods and mineral trains such improved apparatus for coupling and uncoupling the vehicles as shall make it unnecessary for men to go between them for the purpose of coupling or uncoupling; (*b*) to provide adequate accommodation and proper spaces for the safety of railway servants in working on the line or on the premises of a railway company, wherever an inspector of the Board of Trade shall report that the work cannot otherwise be

which is that, though the injured railway passenger mostly obtains compensation, the family of the railway employé only obtains three years' wages, which is no adequate provision. Yet generally he needs it more, and his claims, if disabled or killed, should be prior to any dividend. The provision for pensions by some of our railway companies does not look large beside the million sterling which six chief lines in France devote to the object, and they certainly do not meet the case so adequately as would a national fund.[1] Added to this, our railway funds, like those of other private employers, are only available while the employé remains in the service. It would mend the matter if they were enrolled under the Friendly Societies Act, so as to enable him to continue membership, even if he left the service. The London County Council has set an excellent example in insuring the workmen who construct the Blackwall

carried on without risk of accident; (*c*) to provide greater security for platelayers and fog-signalmen in their work by the adoption of safety appliances to warn them of the approach of trains; (*d*) to provide subways, bridges, or foot-bridges at stations or level crossings, where requisite, in the interest of public safety."

[1] In a recent report to the Foreign Office by Mr. A. Condie Stephen (No. 258, August, 1892), he details the relations of a French Company with 23,000 employés. Some of the items are pensions to employés, their widows and children, in aid of a sum contributed by the employé (the Company's share for one year is 1,360,000 francs); a benefit club, which costs the Company 120,000 francs per annum; the establishment of stores for cheapening groceries, etc., the sales in which amount to 1,200,000 francs per year; the contribution of a monthly sum in aid of wages in periods of exceptionally high prices; the cheap carriage of fuel; medical attendance, medicines, etc.; free transit over the Company's lines; loans without interest to embarrassed employés; premiums on economy in the use of the Company's materials, engines, etc.; asylums, crèches, orphanages for the children of employés killed or who die during their service. The total contribution of the Company to the pension fund and benefit societies for an average year is estimated at 4,334,000 francs (£108,000).

Tunnel. The London and North Western Railway Company, which employs 61,000 men, some years ago promoted mutual insurance societies among their employés, which have proved highly beneficial. To support these societies the men themselves contribute about two-thirds of the income, and the railway company contributes one-third.[1] They prevent litigation, and give rise to no sort of friction between the company and their servants. They cover every kind of accident to employés while on duty, no matter how caused. If a man carelessly places himself in a position of danger, and gets injured on account of such carelessness, the insurance society benefits him equally with the man who, while taking every possible care, may happen to get hurt. This plan seems much better than the Employers' Liability Act, which employers may contract themselves out of, and is constantly creating friction and expense. This system of insurance should be universal and compulsory on all railways.

[1] This company (London and North Western) besides has erected 4,500 houses, let to its servants at from 2s. 3d. to 3s. per week, and enables them to live near their work. It also benefits them in other ways. In his evidence before the Labour Commission, Sir Geo. Findlay stated that most grades of weekly railway servants were now allowed, at discretion and subject to good behaviour, from three to six days' leave of absence, with pay, annually. Stationmasters, clerks, and all salaried servants, were allowed a fortnight's leave of absence in the year, with pay. All servants of the company were allowed free passes occasionally for themselves and their wives to any part of the company's system, besides which they could at any time, and without restriction, obtain privileged tickets for themselves and any members of their family at one-fourth of the ordinary fares. All grades of railway servants employed in connection with the working of the trains were clothed at the company's expense, including the supply of great-coats in winter, with mackintoshes for such as were much exposed to the weather. The Midland Company also devotes about £12,000 to the Friendly Society of its employés. There may be others, but none approach the French company just named.

The whole question of compensation both for passengers and employés might be much simplified under a system of State ownership. An almost nominal charge would cover every possible claim. It need not be determined by the class the passenger travelled in, or the circumstances of the sufferer, nor should he ever have to risk law costs to enforce his claim. Mr. William Farr suggested that every passenger might be insured for a fixed sum charged on his ticket, and a higher charge for those who estimate their lives at a higher rate, and personal injuries to be treated on the same basis.[1]

It may seem Utopian to suggest that if the State assumed ownership of the railways and the employés were permitted reasonable hours of work and some extra pay for drills, a considerable portion of them might be added to our volunteer army, just as easily as the 200,000 men, mainly a working class organisation, who now constitute it. Mr. Farr,[2] alluding to the skill with which Moltke in 1871 wielded the railway system as effectually as Murat handled a corps of cavalry, suggested that a large proportion of the railway employés might receive a semi-military training, like our Volunteer force, and that, with the aid of our half-pay officers and pensioners, would at a little cost largely contribute to our security without promoting the spirit of aggression. By an Act passed in 1871 the Government can on an emergency assume control and take possession of the railway plant. Sir George Findlay has justly expatiated on the value of railways as a means of defence in case of invasion.[3] It is to be hoped that that contingency is remote. But so long as it is

[1] "On the Purchase of Railways by the State."—*Journal of Statistical Society*, 1873, p. 249.

[2] *Journal of Statistical Society*, 1873, p. 255.

[3] "The Working and Management of an English Railway," by George Findlay, p. 283.

necessary to spend so much of our national taxation on war and preparations for it, the co-operation of the railways and the organisation of its staff under one administration would add enormously to our means of defence.[1] If only one-half of the railway employés, regarding the duty as an agreeable variation of occupation, were added, it would swell our citizen army to over 400,000 men available for home defence, and harmless for foreign aggression. When Lord Wolseley can speak of our home army, after the drafts for India are provided, as "like a lemon with the juice squeezed out," such a force is not to be despised. The short-service system seems to have the effect of throwing upon the country a large number of men for whom it is difficult to find employment. At present they number 78,000 and increase at the rate of 17,000 yearly. What becomes of them no one seems to know. Unless employment can be found for the reserve men the difficulty of recruiting will increase and threaten the existence of the short-service system. Pauperism is not a way *pour encourager les autres.* The Society for finding them employment succeeds in finding engagements for about one in eight. The Post Office hopes to employ about 25,000 as country letter-carriers as vacancies arise. The Government has appealed to the railway companies, which, however, do not contemplate absorbing more

[1] The railway from Cracow to Lemberg in Austria was successfully constructed by 20,000 soldiers, under their military engineers—a much better mode of utilising soldiers than their present alternations of useless drill or demoralising idleness. The construction of the Great Siberian Railway is now being carried on by the military and penitentiary departments. They are as capable of making a "light railway" as the Irish peasant has proved himself to be. If the soldier in his many now idle hours were usefully employed, we should find more respectable men join the army (one-third of those who join it now have been in prison), and we should not have twenty-five per cent. of the male paupers of this country to consist of discharged soldiers.

than 2,000 yearly. On the Continent they seem to have solved this difficulty.[1] Sir Juland Danvers stated that in 1889 volunteer corps were formed all over India and formed 75 per cent. of the European and East Indian employés—"an efficient body of men and of good physique." If the State owned the railways, it would no doubt find a way of uniting railway labour and military training to a much larger extent. The problem of national defence in a country which has no conscription and would rather be invaded than tolerate it, increases in difficulty. Men will not join a force which disqualifies them for other employment while still in the prime of life. Only a State railway could adopt such a scheme; railway companies would consider themselves defrauded of time not spent in railway duty.

It is suggested that undue political influence might be exercised by the 400,000 employés as servants of the State. But their political opinions are as diverse as those of any portion of the community, and even if they were all of one mind, they are scattered over the country, and are consequently diluted by a much larger population than themselves, except in the arsenal towns, where dockyard votes carry

[1] In Austria-Hungary the State has about 60,000 posts to which men are eligible, many of them on the railways, as switchmen, guards, pointsmen, etc. In France it was found unnecessary to compel the railways to take them (as was proposed) because preference was given to old soldiers applying for situations for which they were qualified. In Germany there are 92,345 places in the Civil Service, including railways, exclusively reserved for the army and navy men, with the result that "an unemployed old soldier is an unknown article." In Italy, in the railway companies, one-third of the available appointments, amounting to upwards of 1,700, are filled by deserving non-commissioned officers. In all these countries the soldier is thus relieved from anxiety about his future, and no burden is thrown upon the State. "Commercial (No. 5, 1893) Reports from H.M. Embassies on the Civil Employment of Soldiers and Sailors on Completion of Service."

elections, but these would be of little moment. The Post Office employs 117,000 persons (12,000 of them in London), but the political influence of this large body is nil. The real political danger lies in the present overwhelming Parliamentary influence of the railway power which controls all legislation that affects its interests, just as the legal and the landed "interests" protect theirs in turn. Marvellous it is that with almost universal suffrage the "labour" interest is represented by less than a dozen votes, while railway directors number 53 in the present (1893) House of Commons (there were 75 in the last), and there are 50 in the House of Lords.

Political patronage is no longer to be feared in this country. The system of examinations prevailing in most departments of the public service, besides stimulating education, has nearly put an end to patronage and jobbery in all the lower appointments, Post Office, Customs, Excise, etc. For a short period in Victoria the railways were staffed by the protégés of its Parliament. But the colonials soon stopped that, and the employés are now taken on by ballot and examination.

One objection to State ownership is that made by the Hon. G. C. Brodrick. He says: "If all the railways became State property, will there be no danger of a general strike on the part of all the railway men in the kingdom for better pay or shorter hours? and might not a strike on so vast a scale against the government of the country grow into something very like civil war?" Experience so far shows that here, and more so in America, labour conflicts are more probable than in countries where the State owns the railways. The employés in our Post Office and in other Government work do not show much of the "striking" spirit, compared with other employés. With a pension when incapable of work, the railway servant would rather regard the State as his trustee,

especially if not subjected to unfair and unreasonable treatment. The Amalgamated Society of Railway Servants, with a membership of 30,000, has secured valuable concessions from the companies both in wages and prevention of overwork. It asks for a working day of ten hours, each day to be counted by itself, and six days to constitute a week's work—surely not unreasonable demands.

It has taken half a century to enable the State to obtain very inadequate control, in the interests of the public, over these powerful monopolies. The nation that, within the memory of men now living, could leave its Indian Empire to be governed by a company of merchants, and would have handed over to another one a large portion of Africa, is equal to permitting its public highways to belong to private bodies representing no interests but their own. But, as ideas now travel fast and ripen soon, it may possibly not require another fifty years to secure the objects here advocated. It is too generally assumed that the industrial and commercial progress of this country will remain unchanged and unchecked. There are signs that this may not be so. The increasing dependence of our population on foreign food supplies, and the substitution by other nations of their manufactures for ours, are warnings not to lose any means of economising our own resources. Among them the possession of our railways is a most important one ; too important to be left in the hands of a few joint stock companies. That the railways have rendered great service to the nation in promoting its growth and prosperity is indubitable : but experience shows many shortcomings, and that the present railway system cannot be regarded as final, in view of a better and more complete organisation through the State.

NOTE E.

Mr. Herbert Spencer's essay[1] reads more like a romance than a chapter of veritable history of the earlier periods of railway enterprise. Commencing with the Liverpool and Manchester Railway--only permitted to pass on a second attempt, by keeping out of sight all mansions and avoiding game preserves; the London and Birmingham conciliating its opponents by raising the estimate for land from £250,000 to three times that sum; the railway companies commonly paying for land and compensation sums varying from £4,000 to £8,000 per mile; sums paid so inordinate that in one case the heir returned the greater part as conscience money; in another, £120,000 paid for land worth £5,000; preference shares granted to buy off opposition; squires dictating the direction of a line so as to pass through their own domains, and hinting that a fair price would be expected; in one instance £8,000 asked for land for which £80 was accepted. This, however, was but one form of plunder. There was, in addition, the parliamentary expenses, varying from £650 to £3,000 per mile. In one contest £57,000 was spent among six counsel and twenty solicitors. In one company legal and parliamentary expenses reached £480,000 in nine years (averaging £53,000 per year). Mr. Spencer alludes to rather than details the doings of engineers, contractors, etc., all tending in the same direction—to loot the railways. No wonder that English railways are the dearest on earth. One is tempted to ask, Could any amount of State bungling have served us worse?

These transactions were partially known, but there were others of a more secret character. The directors of one line allotted themselves 15,000 new shares, then at a premium, one of them using the company's funds to pay deposits and calls to the extent of £80,000. One railway chairman, with the secretary's connivance, retained shares exceeding a quarter of a million in amount, intending to claim them if they rose to a premium; but as they did not, left them on the hands of the proprietors, to their vast loss. In one company half a million of capital put down to unreal names; in another, directors bought for account more shares than they issued and so forced up the price; in others, repurchased for the company their own shares, paying themselves with the depositors' money, and many other transactions equally shady.

[1] "Railway Morals and Railway Policy," pp. 4—14.

NOTE F.

AREA OF THE PRINCIPAL RAILWAY DISTRICTS IN ENGLAND AND WALES IN 1871 AND 1890.
BY R. PRICE WILLIAMS, Esq., M. Inst. C.E.

Railway Districts.	Miles of Railway. Board of Trade Returns.			Area of Gathering Ground, in Sq. Miles.			Miles of Railway. Per 10 Sq. Miles of Area.			Total Receipts. Board of Trade Returns.		
	1871.	1890.	Increase per cent.	1871.	1890.	Increase per cent.	1871.	1890.	Increase per cent.	1890.	Per mile of line open.	Per square mile of gathering ground.
	Miles.	Miles.	%	Miles.	Miles.	%	Miles.	Miles.	%	£	£	£
Great Eastern	778	1,118	43·70	5,634	5,482	−26·98	1·38	2·04	47·83	4,199,244	3,756	766
Great Northern	576	925	60·59	3,220	3,389	5·25	1·79	2·73	52·51	4,060,396	4,390	1,198
Great Western	1,718	2,499	45·46	12,019	11,954	−0·54	1·43	2·09	46·15	8,760,366	2,499	733
London and Brighton ...	345	435	26·09	1,374	1,503	9.39	2·51	2·89	15·14	2,571,562	5,912	1,711
London, Chatham and Dover	147	188	27·89	478	589	23·22	3·08	3·19	3·57	1,429,832	7,605	2,428
London and North Western	1,472	1,936	31·52	6,174	7,018	13·67	2·38	2·76	15·97	11,591,354	5,987	1,652
Lancashire and Yorkshire	428	523	22·20	1,295	1,206	−6·87	3·30	4·34	31·52	4,368,467	8,353	3,622
London and South Western	669	948	41·70	3,989	4,868	22·04	1·68	1·94	15·48	3,428,885	3,617	704
Manchester, Sheffield and Lincolnshire	343	395	15·16	1,444	1,450	0·42	2·38	2·72	14·29	2,256,599	5,713	1,556
Midland	1,008	1,566	55·36	4,573	5,772	26·22	2·20	2·71	23·18	8,726,673	5,573	1,512
North Eastern	1.314	1,628	23·90	6,908	6,842	−0·95	1·90	2·38	25·26	7,289,935	4,478	1,065
South Eastern	327	397	21·41	1,548	1,448	−6·46	2·11	2·74	29·86	2,304,292	5,804	1,591
North Staffordshire ...	185	200	8·11	701	644	−8·13	2·64	3·11	17·80	744,337	3,722	1,156
Furness	99	149	50·50	617	548	−11·18	1·61	2·72	68·94	517,688	3,474	945
Cambrian	178	273	53·37	1,564	1,506	−3·71	1·14	1·81	58·77	238,627	874	158
Other Lines in England and Wales	1,263	939	−25·65	6,782	4,101	−39·53	1·86	2·29	23·12	5,784,651	6,161	1,411
The whole of England and Wales	10,850	14,119	30·13	58,320	58,320	——	1·86	2·42	30·11	68,272,908	4,836	1,171

The mileage of the different railways comprises, in addition to the mileage assigned to the railways in the Board of Trade returns, its proportion of joint mileage.

NOTE G.

For a remarkable statement of the work and wages of railway signalmen, see the following, from the *Echo* of November 24th, 1891 :—

Among the whole range of working men, there are probably none upon whom a greater responsibility rests than upon the signalmen of a railway company. With them a moment of forgetfulness or a slight mistake, which another man might rectify without the smallest inconvenience, may mean irreparable mischief and loss of life. Yet, for reasons which remain a mystery to outsiders, these men ordinarily receive quite scanty wages, and have few opportunities of promotion. They rank with the skilled, if nerve-training and special aptitude are qualities which make a skilled workman. Yet, for the most part, their rate of pay is hardly, if at all, superior to that which a dock labourer, in moderately good employment, can regularly earn. In the few exceptionally good positions which are open to them, they earn less than a compositor or engineer of very moderate skill, while they are liable to be superannuated quite early in life, and to find themselves reduced to a position which is no better than that which they started from in their early "twenties."

It is the custom of the railway companies to classify their signalmen according to the importance of their position, and to graduate the rates of wages accordingly. The London and South Western Company, for instance, have six classes and a special class, the latter including the more important boxes at the chief termini and goods stations. The wages start from about 17s. in the lowest class, and rise to about 30s. in the highest class, and 33s. in the special class. The Great Western Company have three classes and a special, the lowest wage being 18s., the highest in the special class less than 30s. The Midland have four classes and a special, with wages ranging from 20s. to 33s. The following table may be taken as an average specimen, rather favourable than otherwise :—

	Wages.		
Special class.....	25s. to 31s.,	with bonus, say	£5 yearly.
1st ordinary class...	22s. to 24s.,	„ „	£5 yearly.
2nd „ ...	21s. to 23s.,	„ „	£3 yearly.
3rd „ ...	20s. to 22s.,	„ „	£2 10s. yearly.
4th „ ...	20s.	no bonus.	

When a bonus is added to the weekly wage, it is, of course,

liable to be forfeited for mistakes; and a man must have a very clean record if he is to earn the whole of it.

Let us now see what kind of life is led by an ordinary signalman, and what these various classes really mean. A considerable number of signalmen are recruited from porters and shunters, though the department responsible for shunting is not too ready to part with its best men and let them become signalmen. In any case, the signalman is expected to have had some previous experience of railway work, and to be specially chosen for his smartness and capacity. To begin with, he is sent to a small roadside box, where his work is simply to lower his signals and "book" the trains. "Booking" entails a good deal of clerical labour. He has to enter the time when the signal was "offered" from the previous box, when it was "accepted," when the train arrived, when it departed, when his section was clear, and when his signal was accepted by the next box. The books are regularly inspected, and by means of its entries the history of every train, from the beginning to the end of its journey, can, if necessary, be traced. The signalman is liable to be called upon to account for delays, and if his explanation is unsatisfactory, he may expect a black mark against his name, which will count for something when promotions come to be considered. Still, in these small roadside cabins the responsibility is not very oppressive, and a man who fails here will very properly be deemed unfit for the calling. The work is monotonous, almost machine-like. The signalman remains in his box 12 hours at a stretch, night-shifts and day shifts alternately. He dare not leave his post even for meals, for fear a train should be delayed by his absence. But he gets one day off a week, and is paid a week's wages for six days' work.

From the roadside box he probably goes next to a town or junction-box, where there is shunting to be done. Here his responsibility is heavier. He has not merely to offer and accept signals, but to use his judgment in keeping his section clear. He must know the times when all the principal passenger trains are expected, and see that the goods trains are shunted to let them pass. If an express is delayed because a goods train is on the line, he will certainly be called to book when the inspector next comes his way. Besides looking after his signals, he has now to attend to the points, and to see that the shunting is properly carried out. He has also to book his trains, and the booking becomes rather more complicated. In the more important of these boxes the hours are now reduced from twelve to eight per diem, but the highest wage that a signalman can expect to earn is about 25s. a week, and the average in many companies is considerably less.

If a man proves himself smart and capable in these positions he will get his chance of promotion to a first-class or special box. Now he will find himself at a passenger station or goods depôt, with forty to seventy levers in his box. He must know them all, as a pianoforte player knows the keyboard of his piano. A practised signalman will know one lever from another blindfolded, simply by the weight he has to pull. The more distant the signal the stronger the pull to bring it down. Knack is needed as well as muscle. A burly porter will stand helpless before the lever of a distant signal, which a slim, wiry signalman will work with one sharp jerk. But it is constant labour, with the coat off and the feet in slippers, and it needs the coolest of heads. To remember fifty or sixty different levers, attending all the while to the "needle instrument" or the telephone, may well seem a nightmare of perplexity. But the experienced signalman takes it all in the day's work, with a mind intent upon never delaying the trains except when absolutely necessary, and never risking their safety, though his own reputation for promptness be at stake. He is on work for eight hours at a stretch, with no interval for meals. Sometimes he takes a dozen dashes at his tea, and then gives it up in despair, and returns to his levers. During the daytime he has the assistance of a boy to do the booking, but at night he has to book for himself. At a good many boxes the signalman has now to work the crossing-gates as well as the points and signals, and he finds this extra task no slight addition to his burdens. At some of the special boxes at the great terminal stations and goods depôts the levers are so numerous that two men are needed to work them. How great the responsibility is, and how continuous the strain, may be judged by anyone who watches the arrivals and departures of trains at a big London station. Indeed, the very fact that men are not considered fit for these posts when they are much past forty may be left to speak for itself. Yet the men who are in these positions earn, at the very best, only 35s. a week, and the general average is below 30s.

Apart from wages, there are one or two minor grievances which the companies might rectify without any serious expenditure. Though the men in the first-class and special boxes work only eight hours on week-days, as a rule they get only one Sunday off in three, and on the remaining two Sundays they are required to work twelve hours for an ordinary day's wage. It would be no unreasonable demand to ask for every Sunday off; but at least, if long hours must be worked on Sundays, they should be paid for accordingly. Another demand which may fairly be made is that the signalmen in important positions should be given the same assistance in booking their trains by night as by day. A third and last point is that the men who

have held these important positions should not be reduced quite early in life to roadside cabins, but given opportunities of doing good work, of which they are still quite capable, either as guards or station-masters, or in the clerical departments of the companies. It is high time that railway directors and shareholders should turn their attention to these things.

NOTE H

EXTRACT from a Paper by T. Forster Brown, read before the Economic Section of the British Association, Cardiff, on "Our Coal Resources." — *The Times*, August 22nd, 1891.

What is required is not only a reduction in internal taxation, but special relief to the manufacturing industries of the country, to compensate for the increased cost of fuel and the increased cost of raw material, due to permanently higher freights ; and the solution of this part of the difficulty can, in the writer's opinion, be in a very great degree supplied by the gradual reduction from the period of the exhaustion of the best coal resources of the cost of the whole of the charges of our internal means of communication, both in regard to railway communication, docks, and also canal and river carriage, to the bare cost of working. This would have the effect of lessening the future cost, as compared with the present cost, of delivering coal to the consumer in this country by one-half ; it would help to maintain a certain amount of coal export, and assist in preventing the freight upon imported produce attaining the high level which an absence of outward cargo might otherwise lead to. It would lessen by one-half the cost of docking and inland conveyance of important raw produce to the manufacturer, and similarly lessen by one-half the cost of delivering the manufactured article to the inland consumer and to the seaboard. Besides all this, by reducing the cost of internal communication one-half, it will so lessen the cost of food and clothing to the working classes, and relieve the cost of travelling, as to become one of the greatest boons to the working classes. and go very far to maintain, and probably would actually enable the nation to maintain, the industrial position attained at the time when

the increase in the purchasing price of coal begins to operate. The writer further advocates the relief of the nation after 50 years from the very large annual payments which have to be made by the people for gas and water. The amount of capital invested in our railways is at present estimated at £876,595,000, and the net return upon the outlay is about 4·21 per cent. The amount of capital in canals, river improvements, and docks, etc., is estimated at £64,000,000. The income in this case is probably about 4 per cent. upon the original capital, but the selling value is also probably proportionately less as compared with the railways. The annual net income from railways is £36,930,901 ; canals, docks, etc., estimated £2,560,000 ; total, £39,490,901, say £40,000,000. On the assumption, therefore, that the whole of this capital in these undertakings is repaid within 50 years from the present time and the rates of carriage from that date reduced to the bare cost of working and maintenance, there would be a relief to the population engaged in the industrial, commercial, and agricultural interests of this country, based on the existing income from these sources, of £40,000,000 per annum ; but inasmuch as the country is likely to continue to progress for, it is suggested, a quarter of a century at least, and maintain the position then attained for at least another quarter of a century, the actual results to the nation in the shape of relief would probably far exceed £40,000,000 per annum at the end of 50 years as the result of the reduction of the charges for carriage to the bare cost of working and maintenance. The inquiry will naturally arise, How is this enormous sum required, in addition to the repayment of the National Debt, to be accomplished without impoverishing the nation? The writer's reply is that three alternatives occur to him as practicable—namely, the nation could purchase the railways, etc., and receive the income, setting aside a sinking fund out of the income ; or it could (2) purchase by an annual payment the reversion of the railways, etc., after a certain number of years ; or (3) it could follow, with necessary alterations, the precedent in regard to the railways originally built by private enterprise in our East Indian possessions. Upon the first alternative, in buying up the railways we have to reckon with the present value of the capital invested, and the annual cost to us of the purchase must be taken to be at least 3 per cent. on this present value ; and the immediate advantage of purchasing depends for its effect on the difference between this annual charge and the present return of the railways. It becomes very important to ascertain exactly what that margin will be, and in how many years it may be expected to reduce the capital to zero ; and I have investigated the question so far as railways are concerned to this extent.

The figures are millions and thousands, hundreds being omitted :—

British Railways, Extracted from a Current Share List.

	Amount.	Dividend paid in 1890.	Market Value, 1891.
Ordinary Shares and Stocks ...	£287,319	£13,118	£340,085
Lines leased at fixed rentals ...	7,157	31	9,724
Guaranteed Shares and Stocks ...	94,991	4,155	129,236
Preference Shares and Stocks ...	183,506	7,720	234,127
Debenture Stocks	193,722	7,560	239,497
	£766,698	£32,585	£952,671

Average dividend, 4·25 per cent. ; yield per cent. on the present value, 3·42 per cent. The foregoing may probably be taken as a type of the £876,595,166 invested in railways, and the £64,000,000 in docks, etc., because I find the whole of our railways are returned for 1889 as returning 4·21 per cent. upon the capital expended. If these railways, therefore, which cost £766,000,000 odd, and are worth at the present market value £952,000,000 odd, can be dealt with, the whole could also be probably purchased. I assume that the nation could borrow at 3 per cent., leaving a surplus of ·42 per cent., which would be equal to £4,001,222 per annum. The present income cannot, however, be considered as the net income over the next 50 years. As the development of the country proceeds (less the interest upon further capital outlay) the net income must largely increase, and in lieu of ·42 per cent. the probable average margin after the next five or ten years may be at least 1 per cent. But taking ·42 per cent., or say £4,000,000 per annum invested at 3 per cent. compound interest, it will amount to £954,339,061 in about seventy-one years. One per cent., or £9,526,719 per annum, would produce practically the same amount of capital in 47 years; so that we have reasonable grounds for estimating that if the railways, etc., were now purchased by the nation, and all surplus of income beyond the 3 per cent. applied to a sinking fund, the whole of the capital could be repaid, without cost to the nation, in less than 50 years, and all our communication made free, except the expense of working. That it would be of immense benefit to the nation to have its railroads free of interest charges cannot be denied. For the developed inter-communication which is essential to the social and industrial life of a

community like our modern nations, the railroads must be looked upon as the true roads for the major part of the traffic of the nation, both for goods and passengers. The question, therefore, may be put thus :—"What chance would a nation have of competing with others if its roads were private property, and the traffic thereon could be (within limits) mulcted in tolls to private persons?" If it is answered that its competitors will be in like evil case, it is not so. Both France and Germany will probably own the bulk of their own railways as national property at no very distant date. But the true answer is, that it is not a question of whether our competitors will be no better off in this particular point, but how much difference it would make to us to have this favourable position. And if we look at it in this light, we see at once that the whole of our commercial existence may depend upon the decision Great Britain takes on this matter. The proposition to insure the continuance of our commercial prosperity by freeing the railways during the period of our richest coal harvest is so important that I should like to represent the cost in another way, which is independent of the question whether State management of railways is likely to be more economical than their present management. Assuming that the present value of railways, docks, canals, gas and water works, is £1,350,000,000 in round numbers, and on the assumption that the National Debt and public loans are paid off in 50 years from the present time, the entire freeing of the means of communication, etc., may probably be safely deferred to 75 years. Now, to purchase the reversion of £1,350,000,000 in 75 years with money at 3 per cent. would cost under £5,000,000 per annum, which would be the *maximum* cost therefore to the nation under any circumstances to secure the reversion of all these properties, and free the means of communication and gas and water. For the reason before given, the writer considers this the most expensive mode of freeing these charges, for, by purchasing these properties now, the nation would secure, as a set-off against the £5,000,000 per annum, not only the margin due to the lower rate of percentage at which the Government can obtain capital, but the extra increment in the income in the future. And there remains the third alternative course, which may be adopted by the nation for the purpose of acquiring the railways, and that is by following the precedent of the purchase by the Secretary of State of the East Indian railways, the conditions being modified to meet the somewhat different circumstances. The Eastern Bengal Railway Company Purchase Act, 1884, 47 and 48 Vict., cap. 204, may be quoted as typical of the course followed in the purchase of the Indian railways, and the preamble of that

Act, with clauses 9, 20, and 22, the writer directs special reference to. Many and obvious objections may be reasonably advanced to the handing-over of such large interests to the control and management of a Government department, but a little consideration will show many of these objections to be not so serious as, at the first blush, they would appear. To begin with, during the development period of our internal communications great advantages accrued from the fact of these works being carried out by private enterprise, and by this means competitive railways and docks were established; but now, with the exception of the extensions and additions to our railways and docks in the Midlands, in the Scottish coal field, and South Wales, to accommodate the additional developments which have yet to arise, and the additions and further accommodation upon existing railways, to accommodate a larger volume of traffic, the country has been supplied with railways and docks, and a finality in this direction is rapidly being arrived at. Then, again, the railway experience of the last quarter of a century has educated a large class of persons who are thoroughly conversant with the economical working and management of the railways and docks in this country, and there should be no great difficulty in so organising the control of the working as to secure fair and liberal treatment to all who use them. Then, again, the objections which the inhabitants of this country may reasonably have to the handing-over of the enormous patronage, which the control of so large an interest involves, to a public department, could probably be guarded against by some special provision. Already one of the public departments, the Board of Trade, is beginning to exercise a somewhat paternal control in the management and working of our railways, which is a step in the direction the writer has advocated. If the course suggested in this paper, or such other policy as an exhaustive legislative inquiry may indicate, by which the exhaustion of the best of our coal resources need not necessarily mean the gradual decay of our national position, is adopted, the nation would materially benefit in the immediate future by the permanency which would be secured to our industrial and commercial position.

NOTE J.

"On Uniform Railway Rates for Distances Beyond the Average 'Lead' of the Traffic." By R. Price-Williams, M. Inst. C.E.

The average receipts in 1891 from all descriptions of goods traffic (exclusive of minerals) for the whole of the railways in England and Wales was 5s. 4½d. (64·28d.) per ton, and from minerals 1s. 8d. (19·95d.) per ton.[1]

From an analysis I have made of the working expenses during the last twenty years of the London and North Western and the other principal English railways, I find that, as a rule, the working expenses attributable to goods traffic alone amount to about 45 per cent. of the goods traffic receipts; taking, however, 50 per cent. as an outside figure, the goods traffic working expenses per ton would be 2s. 8d. (32·12d.) per ton.[2]

The average net load of a goods train on the London and North Western Railway, according to Mr. Findlay, may be taken at about 200 tons. The gross receipts per train mile for the goods traffic on the railways throughout England and Wales for the year 1891 would be just 5s. 7d. (67·06d.) Assuming, however, the average net loads of goods trains for the whole of these railways to be only 100 tons, the average net receipts per ton per mile would then only amount to two-thirds of a penny per mile, and the cost of working to one-third of a penny per ton per mile. I have already shown that the average goods traffic receipts amount to 5s. 4d. (64·28d.) per ton; dividing this, therefore, by the average rate per ton per mile would give ninety-six miles as the average lead of the goods traffic in the kingdom, or say, roundly, 100 miles; and inasmuch as the cost of working the goods traffic has already been shown to amount to just one-third of a penny per ton per mile, it follows that so long as an average rate for the carriage of goods by railway for distances beyond 100 miles is not less than 33d. per ton, no loss would

[1] Board of Trade Returns:—

Goods.

$$\frac{£20,196,354}{75,400,170} = 64·28\text{d.}$$

Minerals.

$$\frac{£\ 15,658,055}{188,411,498} = 19·95\text{d.}$$

[2] *Vide* Proceedings of the Institute of Civil Engineers, Vol. XLI., p. 4.

Avoir. weight Goods trains } 207 tons.

$$\frac{£\ 20,196,354}{143,699,648} = 67·06\text{d.}$$

result in the aggregate goods traffic receipts—and I certainly think that it would be well worthy of the consideration of the railway companies and of the Board of Trade to take this more into consideration. The fact that the average gross receipts from all classes of goods traffic only amounts to 5s. 4d. per ton, not only proves conclusively that the great bulk of the traffic consists of what are called the "B and C," or lower class of railway traffic, but that the distance which this traffic is at present conveyed is relatively very short, and that a large reduction in the rates at present charged for long distances would inevitably have the effect at once of creating and developing traffic, not only in the heavier, but in all classes of railway traffic. It is well known to railway experts that, having regard to the terminal charges at each end, the cost per ton per mile does decrease very appreciably for long distances; and inasmuch as a considerable amount of the traffic charges are constant, the cost of carriage would not be affected by the increased distance which the traffic was conveyed. It is quite evident that, so far from any loss resulting from a large reduction in the present rates (within the limits I have prescribed), a considerable profit would be made. How far the introduction of these constant rates would interfere with existing industries situated closer to the market is another matter; but in the case of agricultural produce, and in many of the heavier classes of goods and minerals, there must be districts so far removed from the new markets that would be created as in no way to interfere with this element of competition. The same remarks apply generally to coal traffic. (See *ante*, page 77-79.)

SUPPLEMENTARY NOTES.

THIS volume appeared some months ago, and the Report of the Select Committee on Railway Rates and Charges (No. 462, December 4th, 1893) abundantly confirms its conclusions. It shows out that the Act of 1888 gave no indication as to the principles on which the revised classification and the new maximum rates were to be based, but only that such rates and charges (including terminal charges) should be *just and reasonable*. But what is "just and reasonable?" If the *actual necessary* cost of the service rendered had been first ascertained, the Joint Committee would have had some data for fixing reasonable rates. But no such information existed or was even asked for. Competition fixes price between buyer and seller. But here the seller fixed the price and depopulated highways and railway—blocked canals, enabled the companies to settle matters much as they pleased, and left the trader no alternative. To the former "has been granted a monopoly the most secure, as nothing can compete with it; the most extensive, as it stretches out on every side over the whole face of the land; the most lasting, as its holders hold it in perpetuity; and the most injurious that can be conceived to the public good, as it places the community in the power of the individual capitalist in one of its most important matters."[1] Fifty years' experience since this sentence was written has only confirmed its truth. When, after many years of agitation, the traders succeeded in obtaining legislation to revise railway rates and charges, they thought they were about to obtain considerable concessions. They underrated the power which opposed their demands, and the result has been that they are worse off than before. It is true that when the two parties were before the Joint Committee, the companies protested that they neither wished nor expected to get from the readjusted rates a greater return *on the whole* than they already received, but rather the reverse. The Board of Trade and the Joint Committee expected that the companies would make some increases, in exceptionally low rates, to an extent which would partially recoup their losses in other directions, but not entirely. Had a general raising of those rates which were below the

[1] Railway Reform, 1843.

maxima been anticipated, the Select Committee of 1893 think it most probable that the provisional orders would not have been passed into law. But soon after the first batch of orders were passed into law, in 1891, the managers of seventeen principal railway companies met (September, 1891) and agreed to raise the majority of their rates to the maxima allowed by the Acts, though these had been fixed, not for the purpose of raising rates, which taken all round were high enough and many much too high, but to provide for such contingencies as increased cost of labour and materials. No such increase, however, had occured when the rates were raised. Having obtained legal power to do what they said they never meant to do, the law of 1888 required the companies to give special notice at the stations and in the newspapers, a fortnight beforehand, of every advance of rates. "The object was to give to traders affected by such rise the opportunity of remonstrance and negotiation, and even of appealing to the Board of Trade under the conciliation clause. Experience of the present year has shown that this clause has not been of much effect in deterring the action of the companies." The Board of Trade, at the request of the companies (November 4th, 1892), dispensed with this notice, and allowed mere insertion in the rate books to be treated as a notice. The Board was not aware of the intention of the companies to insert in the rate books, even temporarily, their maximum rates, still less to raise their rates so as to recoup themselves for reductions elsewhere; the Board admits that, had it known this, it would have been more stringent in its requirements, and would have used the notices as a means of negotiation. The Board of Trade, which is expected to be impartial and to protect public interests, was deceived, sacrificed those interests, and placed the traders in the hands of the most powerful combination of monopolies in the world. The Parliamentary Select Committee "find it difficult to understand fully the explanations offered by the railway companies, and still more to justify what they do understand." On the 1st of January, 1893, the railway companies launched the new rates, and every trader, large or small, found that the charges for carriage were advanced enormously—in some cases varying from 5 to 40 per cent,[1] and in others there were still higher advances. The day after (January 2nd, 1893) the Board of Trade asked the companies whether the new rates were to be taken as the future rates, or whether they were to be subject to revision; the Committee considered that the reply of the companies would lead the traders to believe that maximum rates would be maintained, leaving them

See Note D, p. 331.

to contest each case. The Committee thought this was a most unsatisfactory course, dislocating trade, and requiring traders to enter into long negotiations over every over charge. On the 28th of February, 1893, the Board of Trade again addressed the companies, stating the universal dissatisfaction, and recommended a return to the former rates (those of 1892). The companies consented—as they said, to end the noise and odium—to reduce the advance to 5 per cent., except in special cases, of which they were to be the judges. This concession, so far from being a loss, left the companies a considerable increase of profit.[1] In the face of these admissions, the Select Committee arrived at the impotent conclusion that the remedy consists in arbitration before the Railway Commission, which was to be improved in constitution and to cost less. We call it impotent, because, while they affirm "that the raising of established rates for the conveyance of goods—especially in times of depression—is a most serious matter, as affecting the general conditions of trade in a district, the railway companies cannot be considered as exempt from the ordinary fluctuations in the trade of the country, or as being justified in raising their rates at any time in order to maintain their dividends at the expense of other traders, yet do not anticipate a remedy from public opinion or the conciliation clause of the Act of 1888." The companies have been adroit enough to get a new legal sanction to high maximum rates, and pleas of what is "just and reasonable" will not avail much. The railway managers, as experts, will be more than a match for the scattered traders, and they will plead reasons for this or that charge, which the commissioners—all of them lawyers—are not competent to controvert. The British traders, manufacturers and agriculturists, may make up their minds to a considerable and permanent advance in carriage, which they in turn will levy on the British public. This is a poor result in face of many years' agitation to get *reductions* of former rates. But the wisdom of Parliament has decided (Railway and Canal Traffic Act, Chapter 54, 25th of August, 1894) that there shall be no inquiry into the reasonableness of any rates except those that have been raised since the 31st of December, 1892, and in these only to the extent of the increase, implying that the rates charged in 1892 were reasonable. Mr. Tomlinson, speaking on behalf of the traders, said "they had a right to expect that the Government would have taken steps to restore to them the right inadvertently lost by the Act of 1888—namely, the right to attack

[1] An example cited by the Select Committee is that of the Great Western Railway. Taking a fair average of the amended rates on a single day (May 4th), while the losses were £80,000 the gains were £130,000; on another day (August 4th), while losses were £80,000 the gains were £94,000. Rates to some traders were raised to recoup reductions to others.

all rates with regard to their reasonableness . . . It was not the fact that they were satisfied with the measure, because they were dissatisfied with it, nor that they thought they had been fairly dealt with, because they considered they had been very unfairly dealt with." The Chairman of the Select Committee (Mr. Shaw-Lefevre) thought the operation of the Bill might be extended as to rates other than those which were raised in 1893. Sir Albert Rollit, another member of the Select Committee, expressed his opinion of this precious piece of legislation, at the Autumnal Meeting of the Association of Chambers of Commerce (Huddersfield, September 11th, 1894), as follows :—"With the greatest difficulty and sacrifice, and after the most inadequate discussion, the Railway and Canal Traffic Bill has been at last pushed through, as from a siding to which it had been shunted, rather than passed ; and it fails to carry out even the recommendations of the Select Committee, or to effect what is clearly consequential from the summary in its report of recent railway history. It leaves an effete, obsolete, and inevitably technical and costly tribunal without the presence of even one representative of commerce, and the public still at the mercy of the companies as to the reasonableness or otherwise of the chief proportion of each rate, while it gives no incentive to the Board of Trade to carry out—which it has never done—the powers it possesses under the Act of 1873 for the proper protection of the public interest against powerful and often most tyrannical monopolies."

These evils, and others, and the danger of leaving the public highways of the country—for that is what they practically are—in the hands of those who have only their own interests to consult, were pointed out fifty years ago.[1] It is not merely that needlessly heavy rates are imposed on trade, but the evil is aggravated by the way in which the railway has dealt with the

PREFERENTIAL RATES

in favour of foreign as against English produce. The Railway and Canal Traffic Act of 1888 forbade any unfair or unreasonable treatment by the railway companies. It contained the following clause :—

"Provided that no railway company shall make, nor shall the court or the railway commissioners sanction, any difference in the tolls, rates, or charge made for, or any difference in the treatment of, home and foreign merchandise in respect of the same or similar service."

One would think that language could not state the intention

[1] Among others by James Morrison, M.P., in a work entitled "The Influence of English Railway Legislation on Trade and Industry," 1848.

in clearer terms than the above; but the companies were equal to the occasion. In the word "similar" they found a mode of escape. That the clause was introduced at all was not due either to the Board of Trade or the House of Commons, but to the influence of the agricultural interests in the House of Lords. By making onerous conditions not likely to be complied with, the companies were able to treat "similar" traffic as though it were dissimilar. It is difficult to get at the facts of undue preference, because those who profit by them are not likely to make them known. The injustice of the railway companies is particularly manifested in the difference made between the rates from inland towns to those charged from seaport towns, and especially where railway companies have been able to acquire the docks. In the *Morning Post* of March 7th, 1894, some interesting specimens are given of these differences.[1]

This case will be contested before the Railway Commissioners, and an application has already been made to them requiring the railway company to show what proportion they receive of the alleged through rate from America to London, *viâ* Southampton.

At a meeting of the Liverpool City Council (December 5th, 1894), Sir W. B. Forwood said that, "while recognising that Liverpool trade was not growing so rapidly as they had a right to expect, he declared that this was not caused by the Ship Canal, but by the railway companies, who were strangling the trade of Liverpool. They charged 8s. per ton for conveying goods

[1] "Under the Act of 1888 the railway companies are required to show in their rate-books in the case of through Continental rates how much is chargeable for services by sea and how much for services by land. An examination of these figures produces many curious and interesting facts, but the net result is to show that the advantage is almost invariably on the side of the foreigner, to whom in some instances advantages of the most astonishing character are conceded as compared with the unfortunate English producer. The following rates are actually stated to be in operation on the London and South Western Railway for various articles carried between Southampton and London:—

	Per ton.
Fresh meat imported, Southampton to London, including dock charges, conveyance by rail, and cartage to London	17s. 6d.
The same article carried from—	
Romsey (only 1½ mile farther from London than Southampton)	31s. 3d.
Bishopstoke (6 miles nearer to London)	27s 9d.
Winchester (12½ miles nearer to London)	27s 9d.
Botley (1 mile nearer to London)	31s. 8d.
No dock charges being, of course, incurred in the three last-mentioned instances.	
Cheese—imported rate, including dock charges, conveyance by rail, and cartage in London	10s. 0d.
English cheese—	
Bishopstoke (6 miles nearer to London)	22s. 1d.

from Manchester to Liverpool, about 30 miles, and they conveyed the same goods from London to Southampton, about 90 miles, for 6s. per ton. The reason the grain trade went to Hull was that the companies favoured the carriage of goods between Hull and the inland towns. No good would be done until Liverpool took the matter into its own hands and constructed its own line between Liverpool and the Midland towns." How sinking capital in an unnecessary railway is to lessen the rate, Sir W. B. Forwood has, perhaps, not considered. Its shareholders will want dividends, and to get them will soon arrange with the existing lines, as they always do.[1]

"Taking the rates charged by the South Eastern Railway Company, as set forth in their own rate-book, it appears that the through rate for a ton of apples or pears from Boulogne Quay to London (Bricklayers' Arms) is 15s. (owner's risk), as compared with a local rate from Folkestone of 12s. 3d. (company's risk). Taking off 10 per cent. as representing the difference between company's risk and owner's risk, this leaves a margin of 3s. 11d. for the water carriage, and yet, according to the rate-book, the water rate from Folkestone to Boulogne is 13s. 4d. Then, again, on the London, Chatham, and Dover Railway the through rates for potatoes (old) from Calais to London is 12s., at owner's risk, while the rate from Dover to London is, at company's risk, 10s. 6d., although the water carriage, as set forth in the rate-book, is 8s. 4d. between Calais and Dover. For potatoes (new) the through rate between Calais and London is 15s. (owner's risk), as against 15s. 11d. (company's risk) between Dover and London, while the water rate between Calais and Dover is quoted at 10s. 10d., thus giving a rail rate for foreign produce between Dover and London of 4s. 2d. (owner's risk) as against 15s. 11d. (company's risk) for home produce. The through rate for eggs on the Chatham and Dover as between Calais and London is 26s., and as the water rate between Calais and Dover is quoted at the same figure it follows according to the rate-book that eggs are conveyed between Dover and London for nothing. . . . . Mr. W. C. Young, the secretary of the British Dairy Farmers' Association, vouches for the accuracy of the information he had collated. Last year, Mr. Young points out, 11,000,000 cwt. of eggs were imported into this country, representing a value of £1,600,000. 'From many ports of France,' he says 'Honfleur, Cherbourg, Caen, Lisieux, etc., eggs are being landed at Southampton and conveyed thence 78¾ miles by rail at a total charge of 25s. per ton delivered, or 5 cwt. for 6s. 3d. From Winchester or Andover, 66½ miles on the same railway, the charge for 5 cwt. of eggs is 11s. 3d., equal to 45s. per ton. Something similar is to be said of dead poultry, which the United Kingdom annually imports to the value of £500,000. The charge from Honfleur, *viâ* Southampton, to London is at the rate of 1s. 9d. per cwt., or 35s. per ton delivered; but from Eastleigh (73½ miles) and other stations this side of Southampton, the rate is 2s. 3d. per cwt., or 45s. per ton. Again, with regard to butter, I am informed that the total charges from Cherbourg, *viâ* Southampton, to London are less than 1s. per cwt., *i.e.* below 20s. per ton; whereas from Winchester to London (66½ miles) the rate quoted is 2s. 3d. per cwt.'"

The rates for grain to Birmingham—from Cambridge (113

[1] See *ante*, page 62.

miles) and Ely (112 miles) is 14s. 6d.; but from Newcastle, Sunderland, Hartlepool, Middlesborough, and Hull—an average distance of 176 miles—the rate is 13s. 10d. per ton. The *Field* of October 6th, 1894, states that the railway rates from Southampton Docks to London is 6s. per ton for butter, cheese, bacon, lard, and wool. The distance is 76 miles; and we may take for comparison Botley—a rural station on the same line of railway and in the same county—which is the same distance from London. The corresponding rate for all these articles of produce from Botley to London is 19s. 2d. Thus the farmer at Botley has to pay 219 per cent. more for railway carriage on the same produce than his foreign competitor is charged. The rates from other stations on the line afford similar comparisons. The true inwardness of the preference is sufficiently shown by comparing the rates from Southampton Docks to London with those charged from Southampton town to London. The following figures have lately been published, and may therefore be repeated here. The first figure in each case is the rate from Southampton Docks, and the second the rate from Southampton town, the distance to London being practically the same—hops, 6s., 20s. 10d.; apples, 5s., 12s. 11d.; hay and straw (pressed), 5s., 9s. 11d.; eggs, 6s. 8d., 20s. This disposes of the specious argument sometimes used, to the effect that the rate from the port would be equally available for farmers in the neighbourhood if they wished to avail themselves of it. The contention is at best only a subterfuge, for the neighbourhood of seaports is not usually devoted to agricultural production. This case shows that the preferential rate is openly confined to produce landed at the docks.

At the recent meeting of the British Iron Trade Association (October 30th, 1894) Mr. J. Lyon stated that the British iron manufacturer was being gradually elbowed out of the Indian market by Belgian and German competitors. He added that if the English railways charged relatively the same as the Belgian, the rate from Birmingham to Birkenhead would be 4s. 1d. as against 12s. 6d. Hence the Birmingham iron manufacturer stood at a disadvantage of 8s. 6d. per ton as compared with Belgian competitors.

The Act of 1894 fixed the increased rates at what they were on December 31st, 1892, when the enormous advances on rates, which roused the indignation of the whole country, were made and subsequently reduced. If a trader makes application to the Board of Trade, he can frequently get the rates lowered by the railway companies, which looks very much like "trying it on" in the expectation that their customers may not take the trouble to raise such questions. It may be worth the while of a large trader to contest an excessive rate or an undue preference, but

the more probable case is that other traders may not take the necessary steps to get a reduction. The rate may even be nominally reduced, but terminal charges are very elastic; use of stations, loading and unloading services, covering and uncovering, may considerably increase the actual sum charged to the trader. Everything tends to confirm the conclusion that it is impossible, by repressive State regulation, to effectually control powerful private monopolies.

LIGHT RAILWAYS.

The ridiculous *laissez faire* system, which in this country is applied to the most important and essential of public interests, has hitherto prevailed in preventing the adoption of light railways for cheap traffic. In a former chapter of this book (pp. 328–30) attention was called to the bearing of our railway system on the prospects of agriculture and the necessity of light railways. A Royal Commission is now sitting to collect evidence on agricultural depression. How is it that excellent land capable of producing milk, butter, cheese, eggs, fruit and vegetable for our growing population is going out of cultivation, and that in these products we are being undersold by other nations? One effect of our dependence on foreign supplies is, that in time of war we incur the risk of having them cut off. Much of the money we are now spending in guarding ourselves against the greatest national calamity that could befall us might be saved if we depended more largely on our own country for our food supply.

One cause of agricultural depression among others is, that our agriculturists are handicapped by the cost of carriage, now more onerous than ever. Our railways are the dearest on earth, costing on the average over £50,000 per mile, and the charge of carriage per ton per mile is about 4s. dearer per ton as compared with the cost in America. We are now paying the penalty of the needlessly extravagant cost of our railways in Parliamentary expenses, land, etc. A report to the British Iron Trade Association[1] estimates that if our railways could carry the produce of farmers and market gardeners at the American rate, they would save £12,000,000 per annum. Moreover, our existing lines only reach the populous districts of the country. The speculators who initiated them naturally selected those districts most likely to pay good dividends, which accounts for the chaotic way in which the railways are located.

To meet these evils it is now proposed to supplement existing

[1] Presented at Glasgow October 30th, 1894.

lines by cheaper ones, costing from £2,000 to £4,000 per mile, where speed of transit is a secondary object. According to a writer in the *Times*,[1] ours is the only country in Europe which does not provide cheap local railways in addition to the main principal lines; nay, it prohibits them, unless carried out on the costly scale of our main lines:—

"England alone of civilised countries has but one standard for her railways—they must be the best that money can buy. Fences, works, rails, ballasting, bridges over and under, signalling, stations and platforms, engines and rolling-stock—all must be flawless and faultless, or the Board of Trade refuses to sanction the opening of the line. Consequently, even in the poorest agricultural district, no line can, speaking broadly, be built for less than £10,000 per mile. Now, £10,000 of capital means, in other words, £500 for interest on capital per mile per annum, £10 for interest per mile per week. In other words, merely to pay interest on construction capital, and without providing one penny for working expenses—which, needless to say, are on the same magnificent scale, and include vast sums for signalmen and other luxuries unheard of elsewhere—each mile of a petty agricultural branch must carry a *minimum* of 2,400 passengers or tons of goods in each week of the year. To provide for working expenses it must carry, at the very least, as much again. Of course, no merely local line in an agricultural district can guarantee any such traffic at the outset. It is, therefore, impossible to raise the capital or to build the line at all."

Germany, besides its main lines, has branch and light lines, with respective regulations for each; France the same. The result is that such a railway costs, with its rolling-stock, £4 400 per mile, some only cost £3,000 per mile, and, if of metre gauge, 25 per cent. less. When along the side of a high road the cost would be one-half the maximum. France has 2,000 miles of light railways; and, though the Government loses considerably, owing to the extravagant price paid for land and the high terms of the working companies, neither of these are essential conditions. Even with these drawbacks, the French believe they are compensated by the benefits to the nation as a whole. Belgium, which so early solved the problem of State-owned railways, and lately of State Telephones, has much to teach us about light railways.[2] Mr. F. C. Fairholme, C.E., has, at the instance of the Mansion House Association on Railway and Canal Traffic, prepared a Memorandum from official sources.[3] He says:—

[1] See two essays on Light Railways, March 27th and 30th, 1894.
[2] See *ante*, page 137.
[3] The substance appeared in *Engineering*, November 9th, 1894.

"The Belgian Legislature, on June 24th, 1885, passed a Light Railways Amendment Act, empowering the Government to approve the constitution of a central administrative society or company, on the basis of limited liability, to be known as the 'Société Nationale des Chemins de Fer Vicinaux,' and having a preferential right, under certain conditions, to all light railway concessions throughout the kingdom.

"Provision is made for a strict Government control of the working of the society, in order to safeguard the interests of the contributories and of the public, and the board of directors includes a certain number of members nominated by the King.

"Separate accounts are kept for each undertaking; and the nominal capital for construction, and, where necessary, for the purchase of rolling stock, is divided into two categories—namely, that subscribed by private individuals who may wish to take an interest in the particular line, and that subscribed by the Government and the local authorities. The shares of the former category have to be paid up at the call of the directors, whilst the subscriptions of the public authorities (which must amount to at least two-thirds of the capital of each line) may take the form of contingent annuities spread over 90 years, and calculated at the rate of 3½ per cent., including interest and amortisation, both categories being on the same footing as regards voting powers.

"Upon the security of such annuities the society is able, up to a certain limit, to issue 3 per cent. bonds, which have the collateral guarantee of the Government.

"In nearly all cases the working of the lines when constructed is leased, with or without rolling-stock, to individuals or companies (often the neighbouring main line corporations), who pay to the society a certain fixed percentage of the gross receipts after deducting a sum, proportional to the length of the line, for working expenses. The rates of freight, etc., are fixed by the society, subject to the approval of the Government.

"The amounts thus accruing to the society are applied, after providing for administration expenses, to liquidate the annuities subscribed by the public authorities, and to pay a first dividend, not exceeding 4½ per cent., to the holders of the paid-up shares. In the event of the amount available being insufficient to meet all these first charges, it is distributed *pro rata* to both classes of subscribers. Any surplus is devoted to the payment of *tantièmes* to the directors up to a certain limit, and any balance then remaining goes to form reserve funds and to pay a second dividend to the shareholders.

"As a matter of fact, in a large number of cases (see pp. 396-98) the working of the line has proved so satisfactory that the public authorities not only have not had to disburse the

amounts of their annuities, but are actually deriving a direct monetary profit in addition to the indirect benefits accruing from the light railways thus established by their aid.

"Amongst other advantages of the principle thus adopted in Belgium of having one central administrative body in the nature of a public trust for carrying out light railway undertakings, with separate capital accounts for each line, the following may be cited:

"1. Great saving in *personnel* and cost of management.

"2. The society holds, for negotiations with the main line railway companies and others, a much stronger position than could ever be the case were the undertakings left to small isolated companies.

"3. 'Wild-cat' speculations are discouraged.

"4. Local authorities become the proprietors with private subscribers of the lines in which they are concerned, and whilst the operations of the society are carried out on strictly commercial lines, the subscribers have the strong support of Government guarantee for the protection of the interests of individual undertakings.

"5. The fact of the working of the society being centralised under the eyes of the Government greatly facilitates control by the authorities, and the society remains directly responsible to the State for the due carrying out of its obligations and of the regulations which may be made in the public interest.

"(It may be here observed that in making technical and other regulations for the construction and working of light railways, the principle adopted by the Belgian Government appears to be to keep them as simple as possible, and to tie the hands of those who are intrusted with their carrying out as little as is consistent with a due regard for public safety and convenience.)

"The procedure for obtaining powers (which may include the uses of existing roadways and compulsory purchase of land) for a light railway undertaking in Belgium was much shortened and simplified by an Act passed on July 22nd, 1885, which takes into account the fact that such applications are in general not made until an understanding has been already arrived at with the local authorities and others concerned.

"That this light-railway legislation in Belgium is proving a success, the following figures, taken from the last annual report of the society, afford graphic evidence, and I do not think they require further comment on my part:

"At the end of 1893, the period to which the report refers, there were no less than 58 light railways in operation under the

control of the society, with an aggregate length of 1,170 kilometres, say 725½ miles, besides 57½ kilometres, say 35¾ miles, of lines built by private individuals and companies, making a total of 1,227¾ kilometres (761¼ miles), or about 28·8 per cent. of the length of the main lines of railway with which Belgium is also, for its size, so well supplied.

"Further, networks of about 900 miles were either in course of construction at that time (some of them to my knowledge now in operation), or had been seriously taken in hand, and were awaiting the approval of the Government.

"Of the lines already constructed, the large majority (612½ miles) are built to a gauge of 1 metre, whilst 130 miles are on the Dutch narrow gauge of 1·067 metre, in consequence of their joining other lines on the frontier, and five short lines (together 29 miles) have been built, for special reasons, as light-standard gauge railways. The capital outlay per mile has varied from £1,972 in the former case to £9,000 in the latter, the average being about £2,000 to £2,600, including equipment.

"The mean ratio of expenses to receipts is 71 per cent., not counting four lines which were worked at a loss.

"The receipts and expenses per train mile and per mile of railway work out as follows:

	Per Train Mile.		Per Mile Worked. Per Annum.		Per Day.
	s. d.		£		s. d.
Receipts	1 2½	...	286	...	16 4
Expenses	0 10	...	204	...	11 8

"The financial results obtained during 1893, which show a steady improvement over previous years, were so satisfactory that, taking those lines (49) which had been in operation for at least 12 months, the report shows that in the case of 15 of them the public authorities were not called upon for payment of their annuities, and, with the exception of one, the undertakings were able to pay a dividend higher than 3½ per cent., and therefore also to distribute a second dividend to their subscribers; 11 other lines paid more than 3 per cent., and 6 more than 2½ per cent.; the averages for all the above lines being 2·6 per cent. to the public authorities and 3·9 to private subscribers. As before mentioned, only four undertakings out of the total of 58 have thus far resulted in a loss on working; the total loss incurred, however, only amounts to about £3,000, and is covered nearly three times over by the reserve fund, which already amounts to about £9,000. 'Extension and improvement funds' are already being formed for the majority of the lines, and amount in the aggregate to nearly £6,000.

"The last issue of 3 per cent. bonds by the society has been made on such favourable terms that the directors have

announced their intention of reducing from 3·4 to 3·3 per cent. the rate at which the capital annuities are to be calculated for future undertakings."

In Holland these steam-tramways are generally laid upon the public roads. They differ from our steam-tramways in the distance run, often 30 to 40 miles, at a speed of 19 miles an hour. Of the steam-tramways of Italy, the *Times* says :—

"Five years ago there were already 1,400 miles in operation, 300 miles radiating from Milan alone. They have cost on an average under £2,000 a mile, and a large part of the money has been obtained in the form of provincial subsidies. The normal speed is said to be about ten miles an hour, rising to fifteen occasionally. One result of these lines is to be seen in the train-loads of agricultural produce of all kinds—wine, maize, oil, eggs, poultry, chestnuts, etc.—which pour northward across the Gothard in an ever-increasing stream. Light railways might conceivably do nothing for the English farmer, but that they have enabled the peasants of Lombardy to undersell him in his own market is a fact which cannot possibly be either denied or explained away."

He quotes the words of the Prussian Minister of Commerce, spoken last year in moving the third reading of the Light Railway Law (*Kleinbahnen-Gesetz*) in the Prussian Parliament :—

"Elsewhere the construction and working of similar light railways have proved a blessing to the country. A traveller to-day through North Italy, through Belgium, and through Holland, can satisfy himself what a blessing these light railways have been. It is as though irrigation canals had been carried through the fields, and everything was growing and flourishing under their fertilising streams. In North Italy, in particular, the blessing which they bring with them is so obvious that even the casual tourist can hardly fail to notice it."

The *Times* says :—"In Austria-Hungary and the German Empire there are hundreds and thousands of miles of light railways of all possible gauges. Some do not earn enough to pay their working expenses; others—to take two very different instances, the Bosnian railway, over 300 miles long, and the tiny Felda railway in Saxe-Weimar, which cost only £1,250 a mile—have secured a brilliant financial success. Their construction has been promoted by assistance of all kinds—by the State, by the province, or by the commune, as the case may be. That assistance has been given in the shape of direct money grants, guarantees of interest, sub-

scription of ordinary shares, exemption from taxation and local rates, specially advantageous agreements for working, and fifty forms more. In fact, it is as impossible to sum up in one generalisation how the various light railways have been built, as it is to define the phrase itself. That a light railway is something less elaborate, less perfect, than a main line is a necessary implication ; beyond that, all is vague. The term includes, on the one hand, railways hundreds of miles long, with trains running at speeds of 25 miles an hour ; and, on the other, mere tram lines a few hundred yards in length, laid along the waste ground at the side of a road for the benefit of an adjacent quarry or lime-kiln."

Over ordinary tramways (about 1,000 miles, which cost £15,000,000) the gain by diminution of friction is considerable. Apart from steam power, one horse can draw as much as twelve on the best ordinary highway. The speed is limited to 8 miles per hour; and where slow traffic is no objection, and steam power too costly, horse power might be available, in the first instance, until the traffic sufficed for steam or electric conveyance. The *Spectator* (March 31st, 1894), referring to the articles in the *Times*, remarks :—

"It will be said that the steam-tramways will not be able to go up and down hill. The answer is, that in the environs of Birmingham they go up and down hill perfectly, carrying very heavy loads of passengers ; and that what man has done, man can do. Next, it will be said that the horses will be frightened. Well, what if they are? A frightened horse is a much more serious affair in a crowded street than in a country highway, and yet no one forbids urban tramways. Depend upon it, the squire's bays and the parson's cob will get accustomed to steam-tramways just as they got accustomed to steam-rollers, traction-engines, bicycles and level crossings. Lastly, it will be said that they will look hideous, and run over children. The 'hideous' argument is, we admit, a good one as far as it goes, but it is not conclusive. The lines along the road will show very little, and when the village Ruskin sees a tram-train approaching, he must sadly turn his head away. The running over people is not a serious argument. Make ten miles an hour the maximum pace in the open, and five through the villages, and give the tram a good break, and the danger is far less than that from a butcher's cart. . . . No doubt the great railways will at first be frightened by the notion of steam-tramways, and may think of opposition ; but, as a matter of fact, they need not be afraid. The steam-tramways will act as feeders to the main lines, and on the branch lines will probably teach the useful lesson that cheap fares are more lucrative than dear ones, and

that rates which on paper seem impossible are very often in practice excellent business. Let us implore the farmers and landlords to take up the subject of rural steam-transport seriously and earnestly. If they do, they may yet weather the storm and make agriculture a profitable industry. To get steam-tramways along the main roads will do them a hundred times more good than pottering with Protectionists or plodding with railway-rates inspectors. In developing cheap internal transport they have a real chance of escaping from a very terrible dilemma. If they are wise, they will seize it."

The Association of Chambers of Commerce have memorialised the Government five times in behalf of railways for slow traffic.[1] At last the Board of Trade has summoned a conference of representatives from various public bodies to consider the subject.

Since 1868 the Board of Trade has had the power to authorise the construction and working of any railway as a light railway, and, in fact, has authorised some lines which have been more or less successful.[2] The fault of the Board of Trade has

[1] In a recent memorial the chambers affirm "the importance of facilities being afforded for the authorisation (without special application to Parliament) of inexpensive lines of railway adapted for slow traffic to meet the requirements of thinly-populated districts. . . . . It is estimated that in the villages and rural districts of England and Wales there are not less than five millions of people who at present are practically cut off from commercial relations through the want of railway communication. The existing statutory regulations as to the construction of railways necessitate lines of so costly a character that they cannot be made remunerative in thinly-populated districts, but experience has shown that it is possible to construct railways of a much less expensive character which are adequate for the service of small populations; and by such lines, which it has been estimated by competent authority can be constructed at a cost of £4,000 per mile, villages could be brought into communication with the general railway system to the benefit of their inhabitants and of the community at large. . . . . Light railways of this kind, as recently constructed in County Clare and other parts of Ireland, would be of immense advantage to the scattered populations of England and Wales."

As another mode of promoting cheap carriage, the Association asks "that authority should be given for the formation of Public Trusts for the acquisition and working of waterways, with power of compulsory purchase of canals. . . . . An example of such a Trust may be found in the Severn Commissioners, a body elected by the various counties and municipalities connected with the Severn, and having authority to raise tolls for the maintenance and improvement of navigation works in the interest of the community, but having no power to make a profit out of their undertaking beyond the payment of expenses incurred and the repayment with interest of loans raised for capital outlay."

[2] A tramway connects Wantage town with the Wantage Road station of the Great Western Railway. Construction and equipment cost £4,000 per mile. It pays 4½ per cent. on preference shares and 5 per cent. on ordinary. It was probably constructed under the Tramways Act, and is

been that it has not taken powers to initiate such lines, and has been too much inclined to sanction only those constructed on the costly system of existing railways, which are totally inapplicable to the requirements of rural districts. Whether light railways can be made to pay, depends on the mode they originate and are managed. By provisional orders heavy costs at Westminster could be avoided; by using the highways, heavy compensation for land could be saved. If the Government offered to guarantee the local authorities interest at $3\frac{1}{2}$ to 4 per cent., spread over a period to repay both principal and interest, the lines when paid for to revert to the local authority, the necessary capital would easily be raised. On no account should they be private property or managed in private interests, or the abuses on existing railways would be intensified. If the light lines were made of the same gauge, and had a junction with a siding of an existing station, produce could be taken at a trifling cost to and from the rural line. No question, however, connected with these light auxiliary railways is more difficult than that of the gauge. The highest authorities take opposite views. To connect them with existing lines, unless of the same gauge, would so increase cost as to lose much of their advantage. On the other hand, the feeder lines in India have shown a great economy in cost of construction and expense of working.[1] Level crossings should be permitted,

an immense convenience to the inhabitants of Wantage. It carries both goods and passengers, and is laid through fields and on the roadside.

[1] "As compared with the average cost of the standard gauge it is shown that the average cost of a mètre gauge line is rather less than one-half, while the cost of a 2 ft. 6 in. gauge line is exactly only one-fifth. These figures include rolling stock and all capital outlay whatever. For the same expenditure of money it is possible to construct and equip about 400 miles of 2 ft. 6 in. gauge railway for every 100 miles of standard gauge. In India, at all events, it is not open to doubt that a line of narrow gauge, carried to a distance of 100 miles, must produce, in its combined capacity as a feeder to the main trunk line and as a distributer of English merchandise, a much greater effect upon the development of an unopened district than a standard-gauge branch limited to 25 miles, with 75 miles of cartage behind it. In such a case it is purely the narrowness and consequent cheapness of the gauge that tells, by securing at once cheaper carriage and a much greater traffic catchment area. The cost of trans-shipment at the junction with the main line is as nothing compared with the saving effected in the carriage over the additional 75 miles of line which would be laid for the same money.

"The next and most important result which the table makes clear is that the 2 ft. 6 in. gauge running through poor districts with a passenger traffic of less than one-fourth that of the standard gauge, and with a goods traffic only one-twentieth that of the standard gauge—producing together an average revenue of only Rs. 98 (equal to £5 8s.) per mile per week—is not merely able to survive, but can actually show a greater percentage of net profits on total capital outlay than the standard gauge running through

the gates being kept shut against the train. Where fencing is required it should be inexpensive. At a speed not exceeding 12 miles per hour, much expense for stations and staff could be dispensed with, as they are on the Continent. A writer in *Engineering*[1] quotes the example of Sweden, which has 2,000 miles of these light lines, costing only £2,000 per mile, and "strong enough to carry the State line trucks at slow speed, so that there can be intercommunication of trucks without break of gauge all over the three classes of railways, but, of course, separate light engines for the light lines. . . . . There are also some narrow-gauge (chiefly 3 ft.) lines, which have developed into several small networks in different localities, but they have in Sweden been more of a warning against break of gauge. The cause of the cheapness of the light railways of normal gauge is to be found in a combination of conditions peculiar to Sweden. They are all single lines; there are no parliamentary or financial expenses, so that no more capital is charged than has been actually used in construction; land, labour, and materials are cheap, such as iron, steel, wood, and stone. Thus capital expenditure has been so small that even a very limited traffic will pay working expenses, interest on capital, and sometimes a dividend. Still many of these private lines would not have been constructed had it not been for Government aid, given in the following manner: The inhabitants of a district propose to construct a railway for agricultural or industrial purposes, and subscribe, say, half the cost of construction; the Government grants the other half in the form of a loan at a low interest, the same as it cost them. These railways generally pay that interest, and several of them pay a good dividend besides; others, however, pay nothing. The construction of these light railways has constantly been going on during the last thirty years, mostly for agricultural, mineral, and timber traffic, the State building the main lines, which now extend to the northernmost part of Sweden, into the Arctic regions, the branch lines being left to be constructed by private companies."

the pick of the country and backed by all its volume of arterial traffic.

"The traffic to be carried in any district through which it is contemplated to build a new railway is the same whether the proposed line is carried out on the 2 ft. 6 in. or the standard gauge; but the amount of capital over which profits are to be spread may make all the difference between bankruptcy and perdition on the one hand and success and vigorous development on the other."—Everard R. Calthorp, late Assistant Locomotive Superintendent, Great Indian Peninsular Railway. *Times*, December 4th, 1894.

[1] *Engineering*, April 27th, 1894, by C. P. Sandberg.

INDIAN RAILWAYS.

When the House of Commons finds that it cannot devote more than about one day's attendance in a year of a score of its members, to the interests of nearly 300,000,000 whom it is supposed to govern, it cannot be expected that railway progress should be very rapid. In order to promote the growth of feeder lines, a circular from the Government of India, dated Simla, 15th September, 1893, has been issued, offering the following concessions :—

(1) The free use of land.

(2) The provision of rolling stock and the maintenance and working of the new lines at favourable rates by the main-line administrations.

(3) The free use of surveys, etc., made at State expense.

(4) The carriage of stores and materials over State lines at favourable rates.

(5) The grant of a limited rebate from the main-line earnings towards insuring the proprietors of the new lines a dividend of 4 per cent. per annum on the approved capital expenditure.

In addition to the above, if it can be legally arranged, authority will be given to charge to the capital account of the branch railway during construction, and until the close of the half-year next following the half-year in which the branch railway may be fully opened for traffic, such sum as, together with any net receipts from working, will suffice to pay interest at the rate of 4 per cent. per annum on the paid-up capital. The payment of interest out of capital as a part of the constitution of a company cannot, however, at present be recognised except under parliamentary sanction. The question of applying to Parliament for power to enable the Secretary of State for India in Council to recognise such payments in respect to Indian undertakings is under consideration.

Up to the present time not a single application has been made ; on the contrary, the Association of Chambers of Commerce has sent a memorial to the Government asking for a reconsideration of the terms, on the ground that they are not sufficiently encouraging, to which the Indian Secretary has replied that he is in communication with the Government of India on the subject. Thus the matter becomes, as Indian railways have been for many years past, a shuttlecock between the two Governments. The higgling policy, in a country which pays a higher reward for railways than any in the world, is absurd. The Secretary of the Calcutta Chamber of Commerce (Mr. S. E. J. Clarke) writes :—"I hold a very clear opinion

that all Indian railways should be State railways, and that they should be constructed by loans raised in the country to run at given rates of interest for a fixed term of years—say, forty or fifty. There should be but one gauge, that of the great trunk lines, and there should be a great system of feeder lines. In Madras this is most urgent, for the Madras railways appear to avoid towns and to have been constructed on the expectation that the towns will come to the railways. At present, and speaking generally, the trunk lines are fed by bullock carts. Very few trunk lines are required, and a glance at the map will show that it is almost impossible in India to construct a strategical line which shall not serve a commercial purpose. If money for railways is raised in India, I believe the loans will be popular; if, on the contrary, money is raised in England, 'private enterprise' will, in the hands of great capitalists, always force the hands of the Secretary of State in favour of modifications of the guarantee system."

Contrast this with the procedure of the Russian Government, which is urging on the construction of the Great Siberian Railway, 6,000 miles at a cost of £42,000,000, for a population much more sparse than that of India. It has also taken over 1,536 miles in 1893, and this year 1,829 miles more. Its object is the improvement of the existing railway system in rates of carriage and administration, and to diminish the burden of payment of the guaranteed minimum interest.

Could our Government rise to the occasion with light railways in this country, and new main and feeder lines in India, what a development in the iron trade, which has long been languishing, might we expect, while thousands of our working men would find employment, to say nothing of the enormous growth in other industries.

AMERICAN RAILWAYS

have not shown much improvement. Several more railways have gone into the Receiver's hands, with a better chance of honest management than before. The startling fact remains that "61·24 of total stocks paid no dividend, 10·93 per cent. of total bonds paid no interest. Of dividend bearing stock, the rates of interest from 4 to 8 per cent. account for 27·43, while the favourite rates of interest on bonds are from 3 to 6 per cent."[1] The following figures are instructive :—

	1882.	1892.
Miles	114,461	171,570
Dividends	$102,031,000	$83,336,000
Interest per cent ...	$4·40	$2·90

[1] Report of Interstate Commerce Commission, to June 30th, 1893.

The nominal par value in 1882 of about £700,000,000 was increased in ten years to £984,000,000, but the expenditure of £284,000,000 more capital resulted in diminution of £4,000,000 less dividend in 1892 than in 1882. No wonder that, as Mr. Mason (United States Consul-General at Frankfort) says, American railway securities have fallen into bad odour in Germany and elsewhere. He reports :—

"The cloud which overshadows American railway securities in Germany has been raised mainly by the revelations of the last two years concerning the management of several railway properties. German investors were heavy losers, and their losses served to call the attention of the people and press more sharply than ever before to the usurpations of power and evasions of responsibility which, it is claimed, have become so frequent in American railway management. European bond and share holders have been informed that the power of the president and directors in many important railway companies has become practically omnipotent and irresponsible. They have sent over protests and proxies to be used at elections for the purpose of wresting the control of corporate properties from the hands of officers who were said to be abusing their trusts, and they have seen these and every other effort towards a change easily and hopelessly defeated."

Nor does the tale of slaughter and personal injuries to employés and the public lessen (see page 54). As to the employés, the number killed was 2,727, and injured 31,729. Including passengers and others, the total killed was 7,346, and injured, 40,393. This statement reminds one of one by Mr. Stead as to the reckless sacrifice of life on some of the tramways of Chicago, where they have 3,000 crossings on the level. There were, in 1893, 431 (!) "railroad murders." "For years past the city has protested, but protested in vain. The railroads ride roughshod over the convenience, the rights, and the lives of the citizens." If Chicago had *owned* its tramways, it would have been worth all its protests.

One voice there is able to speak a sane word on American railways. In an admirable book on the "National Consolidation of the Railways of the United States,'[1] by George H. Lewis, M.A., the writer states his conclusions as follows. He says :—

"In common with all who have given serious thought and labour to the study of this great subject, the writer has become most deeply and profoundly impressed with the magnitude and perplexity of the railway problem and with the vital necessity and inestimable value of its right solution. Some just and

[1] New York: Dodd, Mead & Co. 1893.

satisfactory settlement of the political and economic questions involved in this problem is absolutely essential to the preservation of equal rights for all the people and the conservation of commercial and political liberty.

"The sphinx of olden times devoured those who could not rightly answer her riddles.

"The railway system of this country is a sphinx whose problems must be solved by the nation, or all true national life will be swallowed up."

The writer believes that the following conclusions have been made clear :—

"1st The plan of National Consolidation is in accordance with law and the constitution of the United States. This has been shown by many decisions of the Supreme Court of the United States. Many more could be added if necessary.

"2nd. It is entirely feasible and practical. We have seen that Mr. C. P. Huntington, one of the most able and experienced railroad men in the country, advocates the formation of one corporation to own and control all railways.

"3rd. It recognises that consolidation in some form is certain and inevitable, and seeks to turn their irresistible tendency into right channels. It shows how consolidation may create a great public corporation, which shall be a minister of good to all the people, instead of a vast monopoly oppressing all.

"4th. It is just to all interests, preserving and maintaining all real rights of private investors as well as those of the public, which are just as real, though not so well understood nor so readily conceded.

"5th. It will remove all the dangerous conflicts and all the elements of irritation and enmity between the railways and their employés and the public, which now constitute a most portentous peril to our national security and good order.

"6th. It will do away with the greatest sources of waste and loss under our present system, and reduce the cost of transportation to the lowest figure, thus satisfying the necessary and inevitable demand for the reduction of rates.

"7th. It will remove the unjust inequalities and the unrighteous discriminations now prevailing.

"8th. It will entirely and forever destroy all rate wars, with their vast waste and disturbance of values and of business, and will make rates steady, uniform, and low.

"9th. It will do away with all strikes and dangerous riots on the railroads, because it will remove their underlying and inciting causes.

"10th. It will bind the different sections of the nation together by the strong tie of common ownership and control of the

united railway system. As the different localities of the country increase in power and wealth, the forces tending to disrupt and break up the national organisation will necessarily become more and more powerful. The problem will be to find some centripetal force to counteract this tendency without involving a perilous increase of the political power of the Federal Government.

"A great railway corporation uniting all the railways of the land, and owned and controlled by the people, as proposed under the plan of national consolidation, would constitute a force making for cohesion and union with almost inconceivable power.

"11th. It will furnish a vast and safe foundation for all the great banking and financial institutions of the country in the stock of the consolidated company; will protect investors in railway securities by making their investments as solid and permanent as Government bonds now are; and will make a perpetual end to gambling in railroad securities, with its unrighteous practices and evil results.

"12th. It will take railways wholly out of politics, and remove the corruption now so common and so dangerous.

"13th. It will dignify all railroad duties and elevate every class of employés to a higher plane of manhood as free, unfettered American citizens, for the great advancement of our social and economic condition."

PRESS NOTICES.

"Much pertinent information in Mr. Hole's painstaking volume."—*Times.*

"This is a book worth careful reading."—*Weekly Dispatch.*

"In an opportune volume Mr. Hole has given able expression on behalf of National Railways."—*Dundee Advertiser.*

"This handy volume is replete with facts and figures, which are marshalled into support of the argument for nationalising the railway system of this country. The experiences of many countries are brought together, and the opinions of experts are given. The subject is not an easy one; but it seems impossible to withstand the force of Mr. Hole's reasoning. We cannot conceive of another century of a private railway system in this country."—*Inquirer.*

"An extremely valuable contribution to an important discussion."—*Manchester Guardian.*

"An array of facts which should prove a powerful argument in favour of the State purchase of railways."—*Dublin Evening Mail.*

"A clear, concise, perfectly judicial, exhaustive, and, at the same time, popular argument . . . . An educative work of the highest value."—*Echo.*

"Dealt with in a complete and comprehensive manner, and in a style which will not only satisfy the requirements of rigid political economists, but intelligible to the ordinary reader."—*Leeds Mercury.*

"The book offers a clear and eminently fair review of the question. The reader will find the book charming though brimful of facts and figures."—*Financial Reformer.*

"Gives an excellent summary of the working of the railways of the world."—*Commerce.*

"Facts and figures have been carefully compiled, and the style in which it has been written is most readable and attractive."—*Southport Visitor.*

"Not only more satisfying, but even more interesting, than many a novel."—*Southport Guardian.*

"The Author deals with the subject exhaustively and critically."—*National Reformer.*

"There is much in the book well worthy of study by all who take any interest in the subject."—*Glasgow Echo.*

"Mr. Hole puts some of the disadvantages and abuses of private railways and their management very clearly and forcibly before his readers."—*Spectator.*

"Should be read by everyone, for it exhibits the railway as a matter of living and intimate interest to each member of the community."—*Westminster Review.*

"The clearest, most complete, and comprehensive contribution on this great subject that we have seen."—*Sheffield Telegraph.*

"The argument is well built up; and, though we believe the time is not yet, such a volume should do much to hasten the realisation of Mr. Hole's aim."—*Edinburgh, N.B., Economist.*

"Affords an interesting summary of railways at home and abroad."—*Birmingham Post.*

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